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ABSTRACT

This report has three parts--recommendations, substantiation for the recommendations, and an appendix of charts and tables. The recommendations are as follows: that the state board of education be assigned the sole responsibility for planning and overseeing the educational programs and related instructional services whereby all individuals in Illinois have an opportunity to reach their fullest possible educational development from early age through secondary school; that the state revise its method of financing the education of children with handicaps and other exceptionalities (the most recommended method is full state funding of extra costs); that the state board be given such responsibilities and financial resources as are necessary to establish an information system for reporting and accounting by public schools, other governmental agencies, and private agencies to carry into effect the recommendations and to improve the knowledge of educational activities in general; and that the present study be continued for four specific purposes. The chapters of the report are "Alternative Methods of Financing Special Education," "Special Education Services Provided by State Agencies," "Special Education and Assessment of Pupil Needs," "Education of Pre-School Age Handicapped Children," and "Bilingualism and Special Education." (Author/IRT)

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SPECIAL EDUCATION

Needs--Costs--Methods of Financing

Report of a Study

by

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Robert A. Burnham

Robert A. Henderson

through the

Bureau of Educational Research

College of Education

University of Illinois at Urbana-Champaign

for the

Illinois School Problems Commission

Illinois Office of Education

May 1975

EA 007 181

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COOPERATING SCHOOL DISTRICTS

Alsip, Hazelgreen and Oak Lawn Elementary School District 126
Cook County

Blue Island School District 130
Elementary District
Cook County

Bloomington School District 87
McLean County

Champaign Community Unit School District 4
Champaign County

City of Chicago School District 299
Cook County

Decatur School District 61
Macon County

Downers Grove School District 58
Du Page County

Edwardsville Community Unit School District 7
Madison County

Galesburg Community Unit School District 205
Knox County

Harrisburg Community Unit School District 3
Saline County

Jacksonville School District 117
Morgan County

Marion Community Unit School District 2
Williamson County

Mattoon Community Unit School District 2
Coles County

Moline Unit School District 40
Rock Island County

Mt. Carmel Community Unit School District 348
Wabash County

Mt. Vernon Township High School District 201
Jefferson County

Mt. Vernon Elementary District
Jefferson County

Peoria School District 150
Peoria County

Quincy School District 172
Adams County

Robinson Community Unit School District 2
Crawford County

Rockford School District 205
Winnebago County

Rock Island School District 41
Rock Island County

Vandalia Community Unit School District 203
Fayette County

FOREWORD

The director gratefully acknowledges the assistance of all who participated in this study: the staff, officials who provided extensive data from cooperating school districts, consultants, teachers who provided information on their instructional needs, Directors of Joint Agreement Districts, and interested individuals in general.

Several persons deserve special recognition: Professor Merle Karnes prepared a position paper based on her extensive research for a number of years with pre-school handicapped children. Professor Jacquetta Hill-Burnett prepared a paper on bilingualism from her research with children from bicultural backgrounds. Both of these papers are included as chapters in this report.

Miss Pence made an analysis of the responses of a sample of teachers, regular and special, who presented evaluations of specialized assistance in teaching pupils with exceptionalities.

Other persons presented a variety of helpful materials. Among these are Directors of Joint Agreement Districts: Stanley T. Bristol, Highland Park; L. D. Vuillemot, Gurnee; Vernon F. Frazee, Morton Grove; Guy H. Mahan, Franklin Park; George Skertich, South Holland; Wendell Jones, Lombard; Dean Fogle, Belleville. Cedric Benson, Director of the West Suburban Cooperative at Cicero and Former President of the Illinois Association of Directors of Special Education, was especially helpful in many ways throughout the study.

A number of superintendents submitted extensive information: J. T. Fennessey, Effingham; Thomas Purple, East Peoria; John Tarter, Lisle: Donald E. White, Highland; Duane Andreas, McHenry; Robert C. Poindexter, Berkeley; J. A. Godde, Plano; and Erwin L. Asbell, Rosiclare.

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William P. McLure

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Never in the experience of the Director of this study, and the senior members Dr. Burnham and Dr. Henderson associated with him, has more convincing evidence been found to support certain recommendations than is the case in this study. Never has the opportunity appeared so momentous for so much improvement and progress in the field known as "special education" with relatively so little required change in state policies and procedures.

It is with this conclusion that the following recommendations are submitted to the sponsors of this study, the Illinois School Problems Commission, and the Illinois Office of Education for their consideration and any action that they may deem to be in the interest of education for the citizens of Illinois.

1. The State Board of Education should be assigned the sole responsibility for planning and overseeing all educational programs and related instructional services, and the necessary operational provisions whereby all individuals in this state have an opportunity for their fullest possible educational development from early age through secondary school.

   With respect to the education of children with handicaps and other exceptionalities, this recommendation should be applicable as follows:

   (1) The State Board of Education should have authority to define and approve programs of instruction, supportive services, and appropriate institutional arrangements for all persons from birth through graduation from high school, and to provide for the uneducables the most appropriate experiences deemed best throughout life.

   (2) The State Board of Education should be responsible for administering inter-disciplinary diagnostic procedures (utilizing expertise of

psychologists, medical experts, social workers, teachers, parents, and others) for the following: (a) to identify the needs of handicapped persons, and (b) to determine their proper placement in other governmental agencies and in private institutions.

2. The state should revise its present method of financing the education of children with handicaps and other exceptionalities in the public schools. The method recommended as most appropriate is described in this study as *Full State Funding of Extra Costs* of programs of children with exceptional needs as compared with other children. This method is described in detail in this report on pages 33-36.

This procedure is based on the evidence that children have varying needs and costs which are not evenly distributed among school districts. Since the general state aid formula is designed to equalize only the basic or regular costs of all pupils, state assumption of extra costs for exceptional educational needs would be a significant step toward improvement of the equalization of financial support of education in Illinois.

If adopted this method of financing special education should be implemented as follows:

(1) Field testing of the method by March 1, 1976.

(2) Operation of the method in 1976-77.

(3) The revised method should be made applicable on a current funding basis; i.e., based on the current year's enrollments rather than the preceding year. For this purpose a system of continuous enrollments from one year to the next should be established. Thus the enrollments of the preceding year could be used for

preliminary payments in the new year until the pupil-load of the current year is established.

3. The State Board of Education should be given such explicit responsibility and financial resources as necessary to establish a system of information for reporting and accounting by public schools, other governmental agencies, and private agencies to carry into effect the recommendations as proposed herein, as well as to improve the knowledge of educational activities in general.

   Such a system would require only simple modifications in the present information system so as to indicate the numbers of clientele with varying needs and designated programs for treatment, and to account for the costs on a program basis.

4. This study of Special Education should be continued into the fiscal year 1975-76 as phase II for the following specific purposes:

   (1) To test the revised financial method for application in the 1976-77 year.

   (2) To develop the proposed information system to be adopted concurrently with the new financial system in 1976-77 among public school districts, and other state agencies administering special education programs or services.

   (3) To establish in the Illinois Office of Education a unified system of information management and fiscal analysis of all educational functions under the jurisdiction of the State Board of Education.

   (4) To study the organization and administration of Joint Agreement Districts for Special Education, needs for capital facilities, and other matters which time does not permit completion in the present study.

CHAPTER I

ALTERNATIVE METHODS OF FINANCING SPECIAL EDUCATION

William P. McLure

Introduction

The public school finance system of Illinois, like every other state, includes methods of funding which were derived over the years from educational purposes, and the most generally accepted knowledge of how to provide instruction and use resources to achieve those purposes.

This study is focused on "Special Education" as an area or component of the total system of public elementary and secondary education. This area consists of some twenty-two instructional programs for which special funds are provided from state and federal revenues.

For reasons which should become clear as the discussion proceeds these programs are treated within the context of the total educational system. Thus the study is designed to show the relative status of special education programs as compared with kindergarten, pre-kindergarten, vocational education, and all remaining parts classified as basic or general programs.

The Nature of Special Education

The financial alternatives presented in this study are based on an interpretation of special education, what it was, what it is, and where it is going. There are three periods in this century which reveal some discernible trends which help to clarify alternative methods of financing in the immediate future.

Pre-1950: The Early Years

The earliest programs were mainly for the very severely handicapped children in need of 24-hour day care. These were wards of the state and were cared for in state mental institutions, schools for incorrigibles, and state schools for the deaf and blind. Some were accommodated in eleemosynary institutions.

The first programs developed in the public schools were mostly for severely handicapped pupils, those with limited learning capacity, and serious emotional and physical difficulties. A "program" consisted of a small group of children with similar handicaps and a teacher. There was little professional training for teaching these children, the best credentials being a good teacher of any children, common sense, patience, and ability to avoid over-empathy in working with handicapped persons.

The teacher of handicapped children was often paid a bonus in salary as an incentive to work with children whom most persons considered burdensome and difficult, if not unrewarding subjects for demonstrable teaching success. Separate salary schedules for these teachers became common in some states but were later discontinued. Small class size and some special materials resulted in a per pupil cost considerably higher than the "normal" or "regular" pupils.

The practice of earmarking special state aid arose out of the need to assist local school districts for the extra costs entailed in operating the programs for the handicapped. The true costs were known to be higher than those for "regular" or non-handicapped pupils. But methods of cost analysis were not developed to determine true costs, or to estimate operational costs

which might have been used as bases for distributing special state funds, or for testing the adequacy or equity of the special aids. Regardless of the types of special aids for special education among the states, these funds became known as categorical aids. Also, they were all "add-on" aids in recognition of extra costs that might impose hardships on some districts to offer programs either because of low local tax ability or a high prevalence of children in the district, or both. Another important consideration in state policy was the incentive held out to school systems to identify all children of given handicaps and to establish special programs for them.

1950 - 1970: Mid-Century Era of Extension and Development

This period was noted for a plethora of ideas, debates, experiments, and development. Many old labels gave way to new ones. There was much effort to find a more appropriate descriptor for the field than *Special Education for the Handicapped.* The most widely used substitute for *handicapped* became *exceptional.* This term seemed more rational to deal with the principle of individual differences that range from very severely handicapped to highly gifted capacities, each deserving special attention.

In these two decades there was an expansion in professional knowledge and skill to attend to individual pupil needs. The early concept of one teacher for a group gave way to a variety of instructional patterns backed up by a broad range of professional services, psychologists, therapists, social workers, instructional aides, and others.

Diagnosis of need expanded from evaluation by the medical specialist and the psychological tester to the combined judgments of teams consisting of physical therapists, psychological examiners, teachers, social workers,

administrators and supervisors, and parents. Instruction expanded to include supportive staff like the physical therapists, teaching assistants, social workers, and supervisors. Class groups became less isolated, and pupils with handicaps of low severity were introduced into regular classes for part of their work. Pupils with mild handicaps were retained in their regular classes and given supplementary instruction by "special" teachers in a variety of ways: in small groups, some individual tutoring, and experience in resource instructional centers. Thus, this mid-century period was characterized most uniquely for developing professional knowledge and differentiating instructional methods and learning activities to meet individual needs.

1970 - 2000: Late Century: The Present and the Early Future

As we examine the present we find much of the past and some of the future. We may find clues to the distinction between the past and the future by examining the great range in educational practice, or human experience, among school systems. So-called "average practice" has been used widely as a criterion to obtain quantitative and descriptive information for purposes of setting state policies.

Most of what we call "average practice" in education is neither fish nor fowl, neither too bad nor too good, and representative of both the past and the future. Thus the task of revising state fiscal policies for special education, like all other phases of education, requires an interpretation of the range of human experiences above and beyond average practice. Somewhere beyond average practice we may find the most dependable sense of direction, and the most reliable benchmarks on which to establish

viable procedures to guide action for future policies. Later, the reader will see how this principle of better-than-average is used in developing a formula for estimating cost allowances (Chart III).

These salient trends are illustrated in Chart I. First, the attention to pupils with very severe handicaps extended to include those with lesser and lesser handicaps, and to a change from the concept of "handicap" to "exceptionality." In cost analysis of programs, as we shall show later, the extent of resource input is highly associated with severity of handicap. Thus we have used in Chart I the term "resource intensity" as synonymous with the commonly used term of "severity of handicap."

We have come to a point in time when public education can, with adequate resources and public cooperation, become a totally adaptive system to fulfill the needs of all individuals. Our national purpose in education is becoming a goal to develop every individual as fully as possible. The Illinois Constitution expresses this idea well as follows: *A fundamental goal of the people of the State is the educational development of all persons to the limits of their capacities.* There is ample evidence to support this concept of education as human development: new federal aids in recent years, new state legislation in the last ten years, court decisions on individual rights, and the rise of public concern for equal educational opportunity.

Special education has developed as a unique phase of education, noted for its attention to individuals with special needs either arising out of or closely associated with physiological and neurological handicaps. The field started with the very severely and severely handicapped persons and

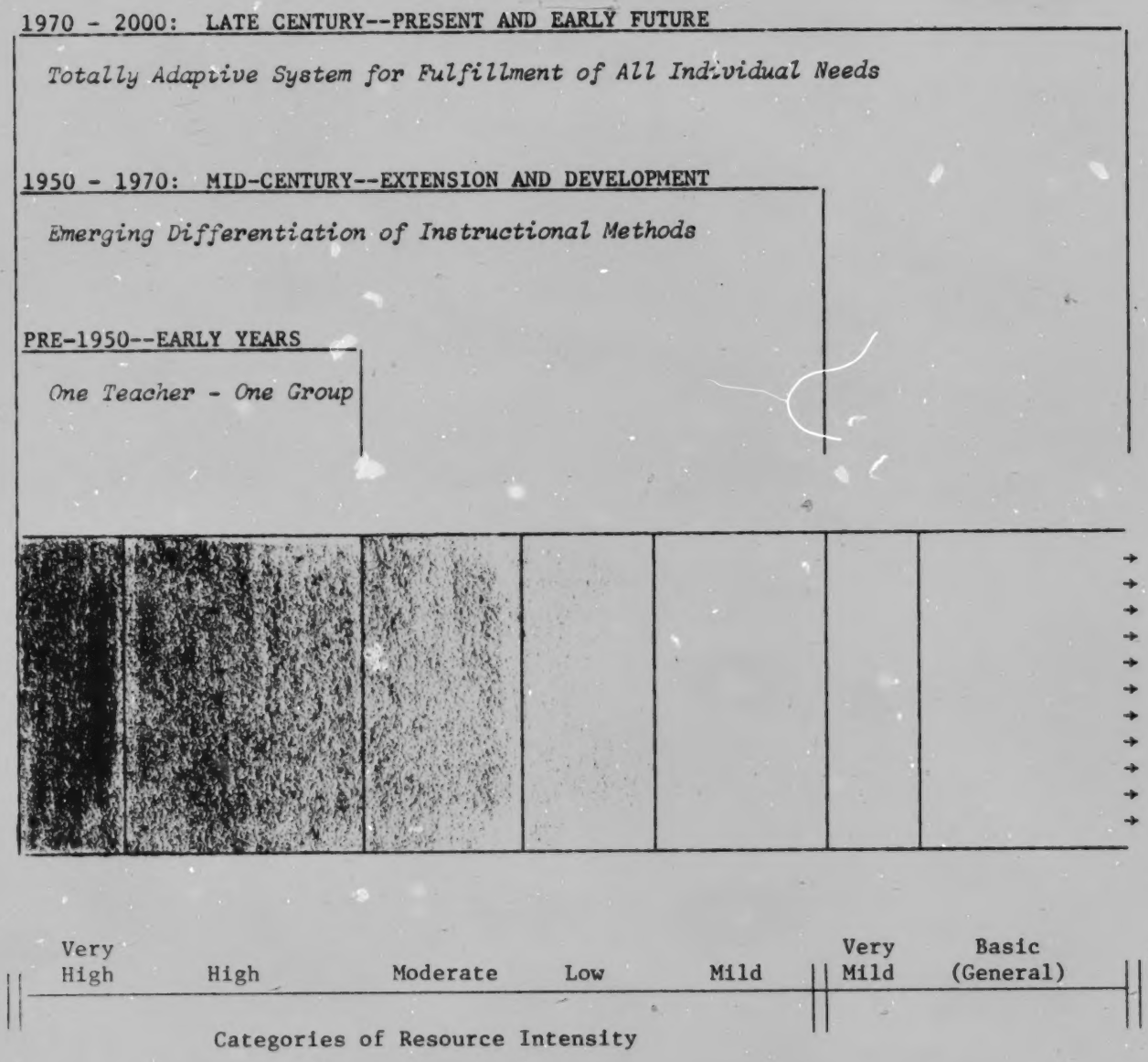

CHART I: SPECIAL EDUCATION IN THE TWENTIETH CENTURY

expanded to include those with moderate, mild, and very mild difficulties. Illinois is one of the few states that has developed programs for the gifted on a limited basis in response to public demand. More than anything else, these programs are evidence of the emerging goal to meet the needs of all individuals.

But special education is not the only portion of the school system that is focusing attention on individual needs. These needs are the central concern of the entire system. Thus, the time may be past when such terms as "handicapped," "regular teachers," "special teachers," and even "special education" will be defensible in developing programs and procedures to meet the needs of all individuals. In the meantime we must use these terms until others may be found to serve as better descriptors for organizing personnel, resources, and learning activities.

The fulfillment of all individual needs is the most important idea that will shape future fiscal policies in special education, and in all other phases of education. Thus education is potentially one of the greatest growth enterprises in this nation, despite the current decrease in school population. The growth potential lies in the unmet needs for human development, of which we have no dependable estimates of relative magnitude and costs. Today, much attention, of necessity, is being focused on declining enrollments, how to cut the budget accordingly, and how to maintain a viable system in the face of inflation. In this near future that is described, our nation could experience a crisis of "human shortage" of skills and knowledge in relation to the total human potential.

Illinois has been among the leading states in expanding special programs to meet the exceptional needs of pupils as illustrated in Chart I. We can

now present data on 23 school districts that cooperated in this study, to show something of the stage of developments and to point up some crucial issues for the future.

Table 1 shows a distribution of pupils in two groups of special programs. The first group includes 19 programs which are reimbursed with "special education" aids. The second group includes three programs, compensatory (mainly Title I), bilingual, and gifted. Group I consists of 36.5 percent of all pupils in special programs in these districts. This figure is 8.0 percent of the total school population in this sample. Group II consists of 63.5 percent of all pupils in special programs and 13.8 percent of the total school population in the sample. If we combine the 16,888 pupils in speech correction with Group II, then the remainder of Group I amounts to 5.5 percent of the total school enrollment, and then Group II becomes 16.3 percent of the total.

The pupils in speech correction programs in Group I have about the same pupil-teacher ratio as those in Group II. Also, they have about the same back-up or supportive services behind each teacher. They have about the same intensity of resource input per pupil as the three programs in Group II. Hence, because of comparability, we can shift the pupils in Speech Correction to Group II. With this change we find that 75 percent of the pupils in the sample would be in Group II. In this revised group then, only 32 percent of the teachers are "special" or entitled to reimbursable aid.

In Group I, the remainder of 38,516 pupils amounts to 25 percent of all pupils in special programs. For these pupils 94 percent of the

Table 1

Distribution of Pupils and Teachers by Groups of Programs

1973-74

District	GROUP I: All Programs Excluding Group II — No. Pupils	No. Regular Teachers	No. Special Teachers	Total Teachers	Special Teachers % of Total	GROUP II: Compensatory (Title I), Bilingual, Gifted — No. Pupils	No. Regular Teachers	No. Special Teachers	Total Teachers	Special Teachers % of Total
Alsip (K-8)	340	7.6	13	20.6	63.1					
Blue Island (K-8)	351	12	11	23	47.8	103	4	3	7	42.9%
Bloomington	892	31.4	37.5	68.9	54.4	384	18.8	10	28.8	34.7
Champaign	1,555	64.1	76.6	140.7	54.4	424	24.5	15	39.5	38.0
Chicago	36,659	348	2,837	3,185	89.1	84,373	2,954	1,433	4,387	32.7
Decatur	2,271	60.9	92.5	153.4	60.3	1,675	65.2	37	102.2	36.2
Downers Grove (K-8)	87		9	9	100.0					
Edwardsville	456	14.1	17.6	31.7	55.5	377	14.4	4.5	18.9	23.8
Galesburg	808	27.2	35	62.2	56.3	495	23.6	6	29.6	20.3
Harrisburg	82	0.4	6.5	6.9	94.2	177	7.4	8.5	15.9	53.5
Jacksonville	535	16.7	29.5	46.2	63.9	508	23.3	8.6	31.9	27.0
Marion	929	21.6	46	67.6	68.0	134	5.8	6.7	12.5	53.6
Mattoon	656	20	22	42	52.4	222	11.3	5	16.3	30.7
Moline	689	22	26.5	48.5	54.6	625	26.1	12.5	38.6	32.4
Mt. Carmel	288	7.5	15	22.5	66.7	98	4.5	3	7.5	40.0
Mt. Vernon (K-8)	244	5.1	12	17.1	70.2	184	7.1	7	14.1	49.6
Mt. Vernon (9-12)	234	9.3	4	13.3	30.1	430	18.4	4.8	23.2	20.7
Peoria	1,178	16.2	117.2	133.4	87.9	327		19	19	100.0
Quincy	621	0	59.5	59.5	100.0	300	13	10	23	43.5
Robinson	126	4.5	6.5	11.0	59.1	419	21.8	4.8	26.6	18.0
Rockford	5,490	173	185	358	51.7	4,225	174	60	234	25.6
Rock Island	747	16	35	51	68.6	673	22.4	9	31.4	28.7
Vandalia	166	4	8.5	12.5	68.0	92	4.2	3	7.2	41.7
TOTAL	55,404	881.6	3,702.4	4,584.0	80.8	96,245	3,443.8	1,670.4	5,114.2	32.7
% of Total in All Sp. Prog.	36.5	9.1	38.2	47.3		63.5	35.5	17.2	52.7	
Shifting Speech Corr from Grp I to Grp II	38,516 (25%)	228	3,464	3,692	94	113,133 (75%)	4,098	1,908	6,006	32

teachers are classified as "special" and subject to some reimbursement from special state aid.

Practically all of the 96,245 pupils in Group II plus 16,888 in Speech Correction (113,133) are in regular classes. They are given supplementary instruction by a 32 percent component of "special" teachers. In the remainder of Group I only six percent of the total teaching staff consists of regular teachers, indicating little "mainstreaming" of these pupils into regular instructional classes. Thus, these children (38,516 of them) are the primary responsibility of "special education" teachers. For the other group with much less severity of handicap, or exceptionality, the primary responsibility is with "regular" teachers and only secondarily with "special education" teachers, though together they exercise a shared responsibility.

Now we may ask the question: As schools move forward in the future toward meeting the needs of all pupils, with whatever exceptionalities individuals may possess that deserve attention, who is to have primary instructional responsibility? The "regular" teacher? The "special" teacher?

Thus, we may raise the question as to whether the dichotomy of "special education" and "regular" teaching as we have operated in the past will be suitable for expansion into the future. If the "regular" teacher has primary responsibility for children with diverse exceptionalities, does he (or she) not need special knowledge and skill, though still in need of more specialized help?

The purpose of this discourse is to raise some profound issues about teacher training, and organization of instructional programs in schools in relation to methods of financing.

The Analysis of Costs

This study presents an intensive analysis of average per pupil costs in 22 special programs, kindergarten, pre-kindergarten, vocational education, elementary school (grades 1-8, or 1-9 as operated), and high school (9-12, or 10-12 as operated) in 23 school districts.

Structure of Costs

The classification of cost components is shown in Chart II. The scope of this study is limited to the major category of instructional costs. Those defined as public services and capital outlay are excluded. These costs are determined by conditions and needs which are only indirectly related to the operating instructional costs.

Transportation is a good example of a public service because the state cannot locate instructional centers within walking distance of all pupils. Conditions of population dispersion, traffic hazards, handicaps, and others are well-known criteria for determining reasonable costs. The state is providing for a high proportion of these through direct aid up to 80 percent of allowable costs. The principle of equity requires that 100 percent allowance of well-planned programs of transportation service be funded directly by the state for all pupils in need, without distinction by instructional program. There is ample experience with this service to require only relatively minor adjustments in the present information system

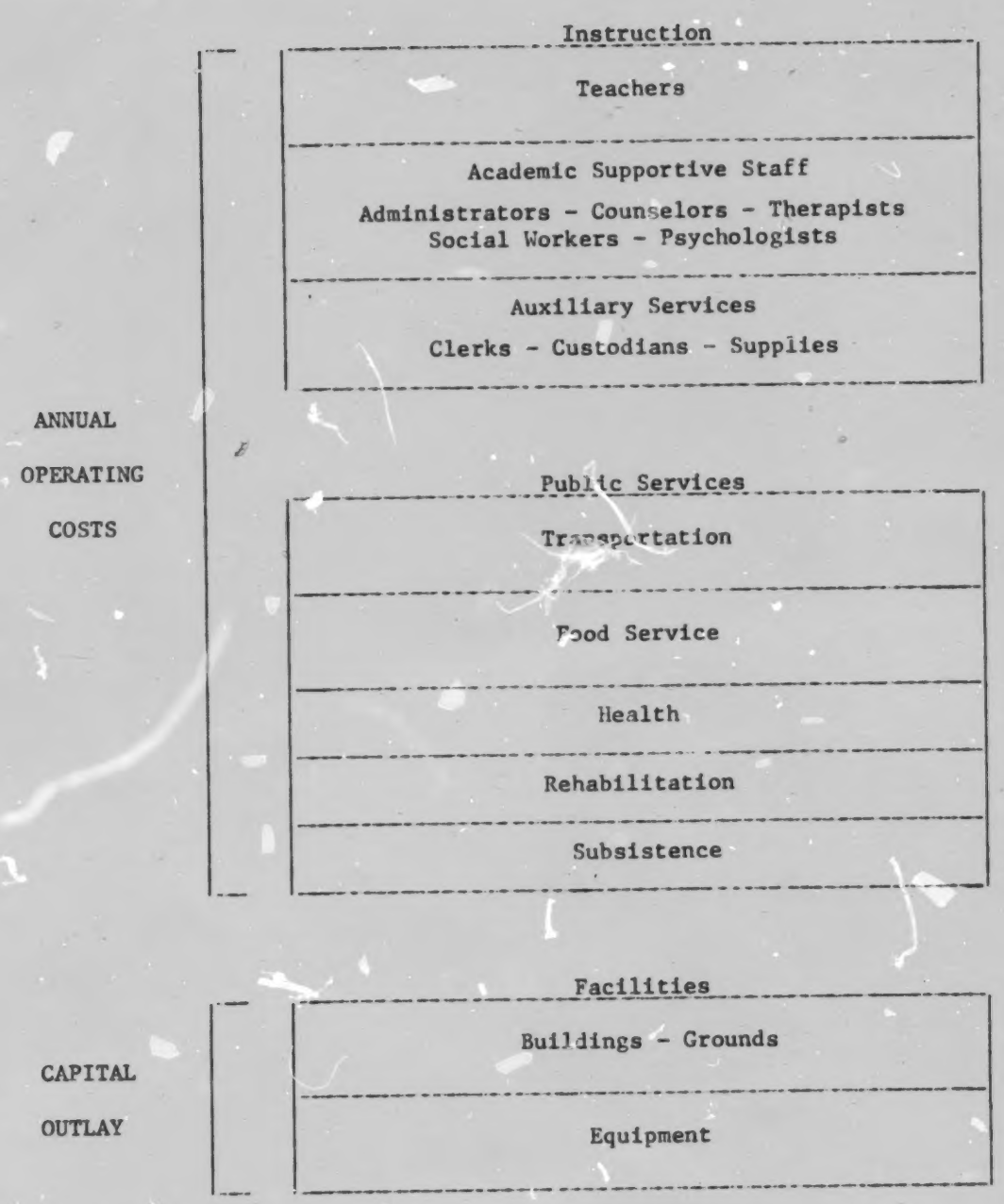

Chart II: COMPONENTS OF SPECIAL EDUCATION COSTS

to establish valid measures of need and feasible monitoring procedures at the state level.

The other public services listed in Chart II must be based on case analysis of individuals and specific groups such as the low-prevalence, severely handicapped children cared for in special regional facilities, and children referred to private agencies. All of these have been outside the scope of this study.

Analysis of Program Costs in 23 School Districts

This analysis includes the operating expenditures in 23 cooperating school districts for instructional costs as defined in the preceding section for the year 1973-74. The exclusions are capital outlay, transportation, food service, community services, and tuition payments of pupils sent to other districts or to private agencies.

Cost is defined as the average instructional expenditure per pupil in a defined program, including the salaries of teachers, academic supportive staff, and auxiliary services. The details of computing the costs are shown in Table 14 of the Appendix. Also, there is in the Appendix a table for each cooperating district, showing the programs, number of pupils by program, costs per pupil, cost differentials, and average number of pupils per certified teacher in each program.

Program costs are computed for 19 so-called "Special Education" programs in this state, and three others: compensatory (Title I), bilingual, and gifted. Throughout this discussion all of these are treated as special programs irrespective of jurisdictional distinctions

for administering and funding. In addition there are general pre-kindergarten; kindergarten; elementary basic (general) in grades 1-8, or 1-9 as organized in a few districts; high school basic (general); and vocational education.

The base for comparing all of the above programs except vocational education is the average per pupil cost in the basic (general) program in elementary grades (1-8, or 1-9). The vocational programs are compared with per pupil cost in the high school basic (general) program. These comparisons are commonly referred to as cost differentials.

Further explanation can be made by referring the reader to Table 17 for Bloomington in the Appendix. Note that the average cost per elementary regular pupil in Bloomington is $934, indexed to the value of 1.00 for comparative purposes. Five children in the pre-school handicapped program cost $3,939 each, with a cost differential of 4.22. Note further that the elementary regular program has a pupil-teacher ratio of 20.0, while the pre-school program has 5.0. Since the teacher's (one in this case) salary is computed at the district average, the cost differential would be 4.0 if all non-teacher expenses were in the same proportion as those in the regular program. Hence, the figure 4.22 indicates that the back-up costs of this teacher are higher than those of the average teacher in the regular program.

Another way of interpreting the cost of this pre-school program is to look at the extra cost above the regular program. The amount of extra cost per pupil is $3,005 or 3.22 above the regular. Thus when we subtract the regular program cost from the total cost of the special

program we have the extra costs which are attributable to the needs of these designated children and the methods by which the school system is organizing resources to deal with these needs.

Formula for Estimating Costs of Special Programs

With this background, we can move to the big issue of whether a formula, or generalization, can be derived from educational practice that would be an equitable measure of need and operationally feasible for the determination of funds for each district.

We can summarize the various analyses of the data. First of all, the program cost differentials do not show any distinctive variation at different expenditure levels of the regular program. (Data are not shown for these analyses.) In other words there are no differences in program cost differentials than can be attributed to the level of the regular (basic) program. This finding is not surprising when about 80 percent of all costs are in salaries of personnel.

Second, there is a wide variation in cost differentials among districts for the same program, or at least the title of the program. The wide variations in cost differentials reflect the variations in severity of handicap among pupils of every category except the most extreme cases.

The educational profession has been struggling for some time to eliminate categories based on physiological and neurological characteristics of children and substitute more appropriate ones that describe the educational treatment needed by the children. While some progress has been made, such titles as "Educationally Handicapped," "Learning

Disability," "Compensatory," and others are just as ambiguous as "Multiple Handicapped," "Partial Seeing," "Educable Mentally Handicapped," "Trainable Mentally Handicapped," and others.

When cost differentials are examined across programs, a factor shows up which is common to all, and that is the average number of pupils per certified teacher, or *the size of the instructional unit.* It really doesn't matter fiscally whether one program for physically handicapped and another for learning disabilities, operating at eight pupils per teacher with comparable back-up costs, are given one common cost differential or two separate ones by program title, so long as the color and quantity of funds are the same.

The definitional or categorical title of program is not suitable to derive a formula. The variations of handicaps within any program cannot be defined with objective precision. At least this writer has not found any basis for such a formula to avoid the tendency of measuring with a rubber band instead of with a common, verifiable yardstick.

The pupil-teacher ratio, or average number of pupils per certified teacher is found to be a suitable measure on which to formularize costs. This measure is capable of meeting educational needs of children regardless of program, local administration, monitoring at the state level, reasonable precision in the determination of funds, and neutrality with respect to the flexibility of the system to utilize instructional methods. This measure allows the profession to continue with ambiguity until new knowledge provides more clarity.

The pupil-teacher ratio, with attendant back-up services, provides a basis for classifying programs according to resource intensity. Actually,

education in general has a high labor-product (pupil-staff) ratio and is classified as a high intensity resource enterprise. This is the fundamental fact which causes much of the long-term cost-push pressures of educational costs in our society.

This concept of the instructional unit, when applied to the various special programs, merely extends the range of resource intensity from the regular (basic) program to those pupils with extremely exceptional needs. There is, of course, a relationship of resource needs to the severity of handicap (or exceptionality). Therefore, five categories of resource intensity, corresponding to five sizes of instructional units, are chosen for illustration. Chart III shows the distribution of cost differentials of the 22 special programs in the sample of cooperating districts. The cost differentials on the vertical (Y) axis are related to the corresponding pupil-teacher ratio of the program on the horizontal (X) axis.

The distribution is curvilinear and hence the question arises as to whether a mathematical formula for a curve is more appropriate to illustrate a line of best fit than a series of straight-line segments of simpler nature. The latter has been chosen.

The line of best fit shown in Chart III is not a computed average based on the method of least squares. Instead it is an estimated average of the top half of the distribution of cost differentials. This is the better-than-average principle asserted earlier.

Table 2 shows a scale of computed values from the formulas represented by the line of fit in Chart III. The algebraic formulas for the line segments are shown at the bottom of this table. They may be found in any textbook for first-year algebra in high school.

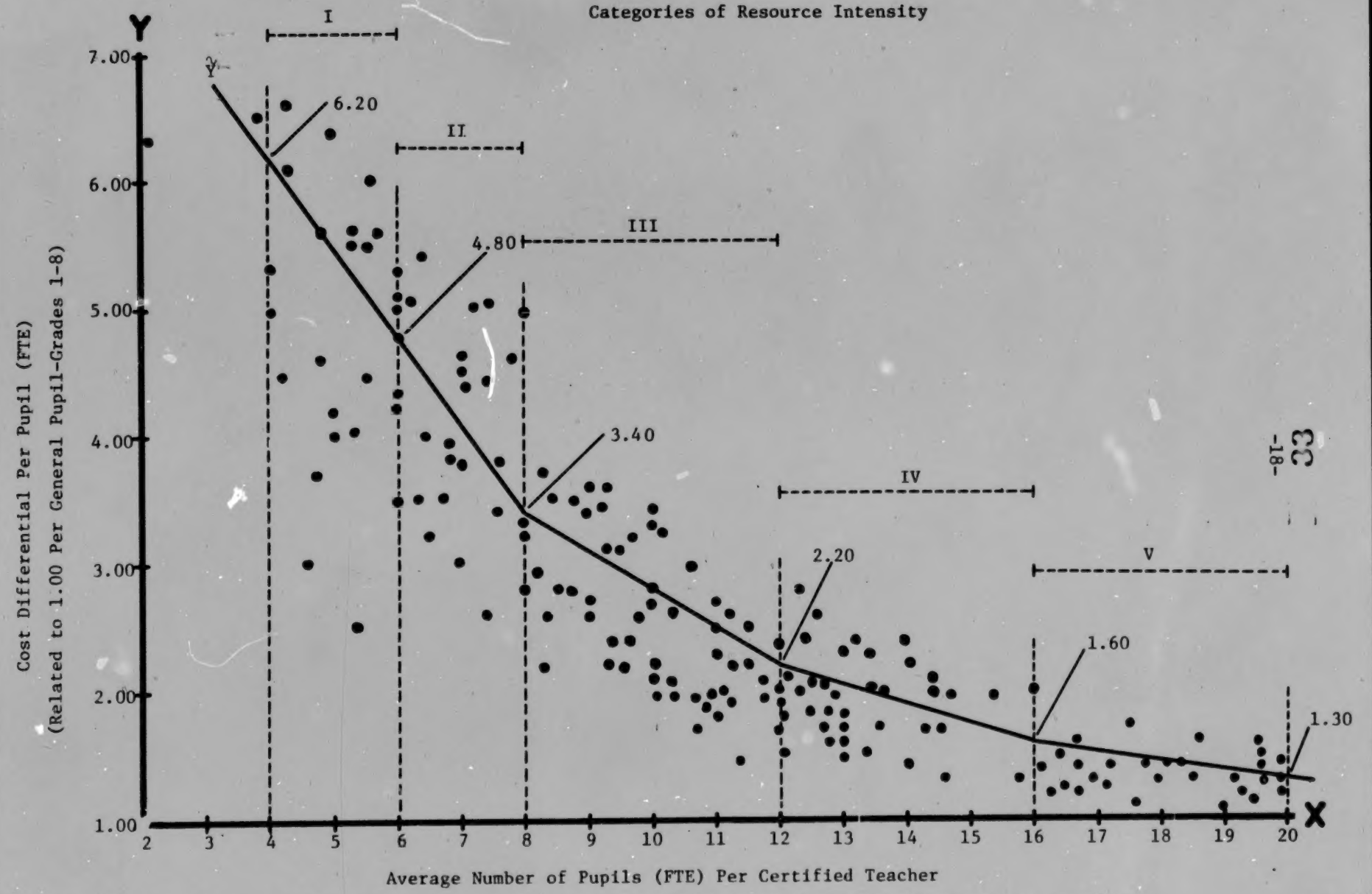

CHART III: DISTRIBUTION OF SPECIAL EDUCATION PROGRAM COSTS IN RELATION TO NUMBER OF PUPILS PER TEACHER

Table 2

Scale of Program Cost Differentials
for Special Programs

Resource Category	Pupil-Teacher Ratio (X)	Cost Diff. $(\tilde{Y})$
I	4.0	6.20
	4.5	5.85
	5.0	5.50
	5.5	5.15
	6.0	4.80
II	6.5	4.45
	7.0	4.10
	7.5	3.75
	8.0	3.40
III	8.5	3.25
	9.0	3.10
	9.5	2.95
	10.0	2.80
	10.5	2.65
	11.0	2.50
	11.5	2.35
	12.0	2.20
IV	12.5	2.12
	13.0	2.05
	13.5	1.97
	14.0	1.90
	14.5	1.82
	15.0	1.75
	15.5	1.67
	16.0	1.60
V	16.5	1.56
	17.0	1.52
	17.5	1.49
	18.0	1.45
	18.5	1.41
	19.0	1.37
	19.5	1.34
	20.0	1.30

Resource Category	Formulas for Computing Cost Differentials $(\tilde{Y})$
I & II	$\tilde{Y} = 9.00 - 0.70X$
III	$\tilde{Y} = 5.80 - 0.30X$
IV	$\tilde{Y} = 4.00 - 0.15X$
V	$\tilde{Y} = 2.80 - 0.075X$

NOTE: The applicable formula cost allowance per pupil in a particular program in a given unit (elementary) district is obtained by multiplying the computed cost differential times the average cost per pupil in the basic (general) program in grades one through eight. In the high school districts the computed cost differential is multiplied by the basic (general) program in grades nine through twelve.

Further Perspectives of Program Classifications by Resource Inputs

Some further examinations of program costs and cost differentials support the perspective of relating resource inputs to size of instructional units (average number of pupils per teacher). In Table 2 the ranges of pupils per resource category (and instructional unit) are shown as follows: I--4-6; II--6-8; III--8-12; IV--12-16; V--16-20.

One perspective of variability is the distribution of programs across these resource categories, as shown in Table 3. The pre-school programs spread across four categories. Three others spread across four categories. The most important cause of this variation can be attributed to numbers of pupils involved.

A companion distribution of pupils is shown in Table 4. Categories I and II, with the smallest class size and highest resource inputs, have only 3.9 percent of all pupils in special programs, whereas they are instructed in 30 percent of the operating programs. Category III, labeled moderate resource intensity, has 8.5 percent of all pupils and one-third of all programs. Category IV, low intensity, has 13.5 percent of the pupils and 19.1 percent of the programs. Category V, mild intensity, has 74.1 percent of the pupils in 17.6 percent of all special-aided programs except vocational education.

An important question arises concerning the possible distribution of pupils not currently enrolled in special programs. According to a sampling of opinion from 30 Directors of Joint Agreement Districts, there are substantial numbers of such pupils. A small percentage would

Table 3

Distribution of Programs by Intensity of Resource Inputs

1973-74

Program	Categories of Intensity I Very High	II High	III Moderate	IV Low	V Mild	Total Number of Programs
1. Pre-school	5	6	2	2		15
2. Mult. Hand.	1	5	1			7
3. Phy. Hand.	2	2	4		1	9
4. Deaf	3	1				4
5. Hear. Imp.	6	1				7
6. Blind	2					2
7. Partial Seeing	4	3				7
8. Residential	3		2			5
9. Soc. Adj. Sch.		1				1
10. Home-Hospital	1		1			2
11. Land. Develop.	1					1
12. Brain Injured	1					1
13. Emot. Dist.	1	2	5			8
14. EMH			9	13		22
15. TMH	1	1	10	4		16
16. Ed. Hand.		2	7	3	1	13
17. Learning Disab.		1	16		3	20
18. Family Mal. Adj.				1		1
19. Speech Corr.			1	4	14	19
20. Comp. (Title I)		1	4	6	8	19
21. Bilingual				3	2	5
22. Gifted					4	4
Total	31	26	62	36	33	188
Percent of Total	16.5	13.8	33.0	19.1	17.6	100

Table 4

Proportions of Total School Population in Special Programs

1973-74

District	Total Number Pupils in Dist.	Number of Pupils by Resource Category I	II	III	IV	V	Total	% of Total Pupils in Dist.
Alsip (K-8)	2,406	11		30		299	340	14.1
Blue Island (K-8)	3,551			111	103	240	454	12.8
Bloomington	6,143	14		340	522	400	1,276	20.8
Champaign	10,275	11	72	1,004	892		1,979	19.3
Chicago	511,870	3,092	1,748	7,399	14,736	94,057	121,032	23.7
Decatur	18,650	43	77	270	497	3,059	3,946	21.2
Downers Grove (K-8)	6,183		13	36	38		87	1.4
Edwardsville	5,368	10	22	54		747	833	15.5
Galesburg	7,909	12	16	330	50	895	1,303	16.5
Harrisburg	2,657		4	199	56		259	9.8
Jacksonville	4,946		80	433		530	1,043	21.1
Marion	5,341		54	306	270	433	1,063	19.9
Mattoon	5,200	6		20	699	153	878	16.9
Moline	11,067	42	14	145	178	935	1,314	11.9
Mt. Carmel	2,491	5		85	149	147	386	15.5
Mt. Vernon El. (K-8)	2,263		7	52	235	134	428	18.9
Mt. Vernon H.S. (9-12)	1,854				52	612	664	35.8
Peoria	22,658	138	148	966		253	1,505	6.6
Quincy	8,897	43		513	365		921	10.4
Robinson	2,114	4		50	370	121	545	25.8
Rockford	40,071	136	89	220	850	8,420	9,715	24.2
Rock Island	10,741	11		269	287	853	1,420	13.2
Vandalia	2,109	3		36	149	70	258	12.2
Total	694,764	3,581	2,344	12,868	20,498	112,358	151,649	21.8
% of Total	694,764	0.5	0.3	1.9	2.9	16.2	21.8	
% of Total in Special Prog.	151,649	2.4	1.5	8.5	13.5	74.1	100	

belong in the moderate category and most would be in the low and mild categories.

Another important question to examine is the extent of non-teaching supportive and auxiliary costs. Table 5 shows the percents of teachers' salaries in each category that comprise added back-up resources respectively in the special programs as compared with the basic (regular) program. Category I has a total of 17 percent of teachers' salaries above the regular programs. Category II has a total of 28 percent, III and IV each has 18, and V has the lowest with only 4 percent.

These added components of instructional costs are substantial and provide a basis for consideration if the state decides to retain the present method of additives for different types of personnel.

Vocational Education

Vocational education is not part of the central purpose of this study. However, the method of cost analysis used for the designated special programs requires that all programs with special funds be included. These programs are part of the total system and must receive equitable consideration in the allocation of resources. Hence they are included and will be discussed briefly.

There are six major programs (and one pre-vocational), with varying numbers represented in 19 school districts. These are agriculture, home economics, trade and industrial, business and distributive, health occupations, and cooperative-vocational. The costs are developed for each program in the same manner as those of the so-called special programs. All of them

Table 5

Extent of Non-Teaching Supportive and Auxiliary Costs for Special Education

Program Categories (Ave. No. Pupils per Teacher)	Percent of Teachers' Salaries Added For					
	Academic Supportive Staff			Auxiliary Supplies and Services		
	% For Basic Program	% For Special Programs	% Above Basic Program	% For Basic Program	% For Special Programs	% Above Basic Program
I. 4 - 6	30%	40%	10%	39%	46%	7%
II. 6 - 8	26	50	24	45	49	4
III. 8 - 12	29	47	18	39	39	0
IV. 12 - 16	25	41	16	45	47	2
V. 16 - 20	26	27	1	43	46	3

are in high school and represent subject matter courses which are only part of each student's load or curriculum. There are a few exceptions of part-time students who attend school in the vocational centers only for vocational work. The total student load of five Carnegie units for the school year is used as a standard for determining pupil equivalents in these programs. Hence, a student in a vocational course that has one unit credit value would be counted as 0.20 FTE pupil in the vocational program and 0.80 FTE in the basic or general program.

Thus the cost differentials are the ratios of costs for the vocational programs for equivalent student load as compared with students who are not enrolled in the vocational programs. Chart IV shows the distribution of all vocational programs according to the cost differential on the vertical axis (Y), and the average number of FTE pupils per certified teacher on the horizontal axis (X).

These programs can be analyzed and treated on the same principles as those for special education. They have characteristics for definition and description. But these definitions are no more suitable for measuring needed resources than are the special programs. Like the others, the vocational programs have a common base of measurement, the average number of students per teacher with supplementary back-up resources.

No attempt is made in this study to define ranges of instructional size and the corresponding categories of resource intensity as illustrated for the special programs. Appropriate divisions could be made and applied easily.

The distribution of cost differentials in Chart IV reveals three distinct groups. There are a few programs with less than 9 students per class of very

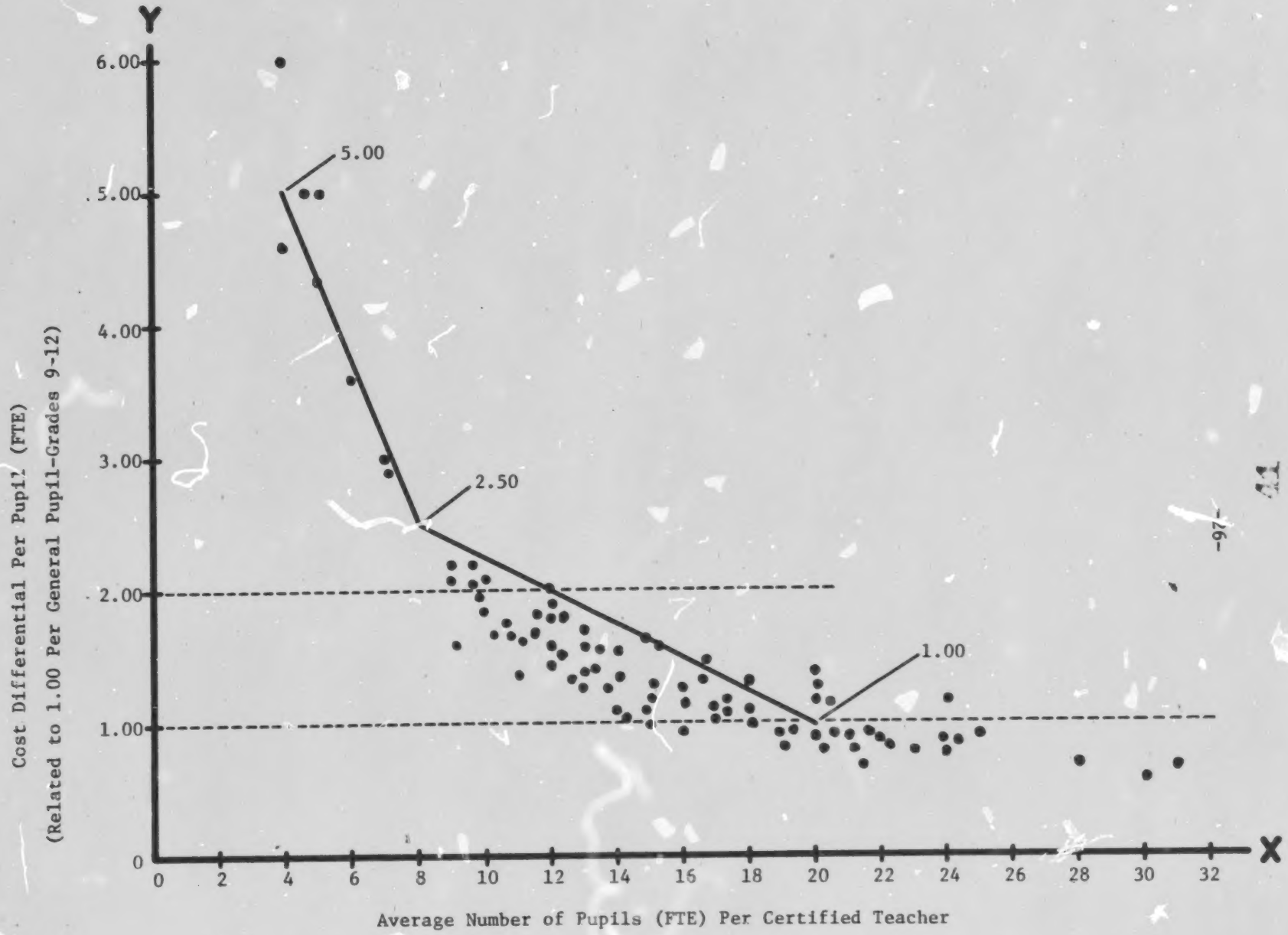

CHART IV: DISTRIBUTION OF VOCATIONAL EDUCATION PROGRAM COSTS IN RELATION TO NUMBER OF PUPILS PER TEACHER

high cost. The middle group ranges from 9 to 20 students with the cost ranging from twice the regular classes to the same cost (1.00) as regular classes. Twenty-two programs cost less per pupil for the equivalent time in the program than the regular program.

There are certain conditions that seem to explain these wide variations in costs. At the upper extreme the problem is primarily a marginality of numbers of students to establish or to maintain the program. At the lower extreme two conditions are observed. One is definitional, i.e. pre-vocational courses such as typing, elementary bookkeeping, general drawing, and others are included in the data of some districts in this sample. In other words some of what is called vocational is as general as mathematics and science, both in terms of funding requirements and conception of what constitutes basic knowledge and skills. Another condition is that enrollments in some vocational courses have held up, if not increased, while the averages of the regular program have declined in recent years.

There is ample evidence in this analysis to suggest the need for a comprehensive study of vocational education. The profile of relative costs as shown in Chart IV indicates a serious sag of vocational education at the low end of the distribution. Much of this sag is due not only to the high student-teacher ratio but also to limited back-up resources. The high cost of instructional materials is mentioned frequently as an important depressant of these back-up costs.

The dark line of fit is drawn more as a benchmark for further study and evaluation of program needs than as a proposal for estimating adequate resources. Table 6 shows the scale of cost differentials represented by the two straight lines.

Table 6

Alternative Cost Allowances
for Vocational Education Programs

Scale of Cost Differentials

Pupil-Teacher Ratio	Cost Differential ($\tilde{Y}$)	
4.0	5.00	$\tilde{Y} = 7.50 - 0.625X$
5.0	4.37	
6.0	3.75	
7.0	3.12	
8.0	2.50	
9.0	2.37	$\tilde{Y} = 3.50 - 0.125X$
10.0	2.25	
11.0	2.12	
12.0	2.00	
13.0	1.87	
14.0	1.75	
15.0	1.62	
16.0	1.50	
17.0	1.37	
18.0	1.25	
19.0	1.12	
20.0	1.00	

Table 7 presents the concluding information on vocational programs. This table shows the total costs of vocational programs, the cost of equivalent numbers of pupils (in FTE) for the regular programs, the extra costs of vocational programs above the regular ones, and the net cost to the district after deducting special state and federal funds. Eight districts have negative amounts because the vocational costs are close to or below the amount spent on regular programs.

Table 7

Adequacy of Special Aids for Extra Costs of Vocational Programs

1973-74

District	No. Pupil FTE's in Course Enrollments	Total Voc. Ed. Costs	Basic Costs	Extra Costs Above Basic (General)	Special Aids State & Fed.	Net Extra Costs to Dist.
Bloomington	205	$ 371,163	$ 207,255	$ 163,908	$ 109,925	$ 53,983
Champaign	485	899,181	593,640	305,541	115,438	190,103
Chicago	27,701	42,924,447	36,537,619	6,386,828	5,327,348	1,059,480
Decatur	641	785,361	591,002	194,359	273,468	-79,109
Edwardsville	437	370,774	390,678	-19,904	50,000	-69,904
Galesburg	538	423,406	464,294	-40,888	62,000	-102,888
Harrisburg	110	174,644	81,730	92,914	36,607	56,307
Jacksonville	231	212,186	218,988	-6,802	46,108	-52,910
Marion	477	515,315	528,039	-12,724	92,590	-105,314
Mattoon	423	546,319	400,581	145,738	77,430	68,308
Moline	468	822,249	533,988	288,261	94,602	193,659
Mt. Carmel	174	209,555	184,440	25,115	30,738	-5,623
Mt. Vernon H.S.	624	556,760	677,040	-120,280	112,148	-232,428
Peoria	297	1,367,232	262,251	1,104,981	255,676	849,305
Quincy	151	406,671	159,305	247,366	178,956	68,410
Robinson	157	200,001	180,236	19,765	44,426	-24,661
Rockford (AVC only)	500	667,676	486,000	181,676	166,311	15,365
Rock Island	269	620,571	351,314	269,257	105,698	163,559
Vandalia	132	152,056	147,840	4,216	42,384	-38,168
Total for 14 Districts with Extra Cost Above Basic -				9,429,925	6,859,007	
Total Costs under Basic - in 5 Districts -				200,598	362,846	

Methods of Funding

Background

Illinois is much like other states in the development of methods to finance public education. The general state aid formula is the instrument to provide most of the funds. The special aids are add-ons that have grown up through the years as responses to special needs which the general formula did not seem to accommodate adequately.

Knowledge is available to consolidate all special aids and provisions into a comprehensive general formula to provide a measure of the variable costs of a school population with diverse educational needs. The crucial question which Illinois and other states face is: Do the advantages of consolidation outweigh the advantages of retaining separate procedures?

Hopefully this study may help to answer this question or to improve the present method in use by whatever procedures may be adopted. Before we present the alternative funding patterns to be discussed it may be helpful to examine the result of the present funding method.

Table 8 presents a summary of the adequacy of special funding procedures in Illinois to meet the extra costs entailed in special programs. The general state aid formula provides funds on a gross per pupil count for those in special programs equal to the amount per regular pupil. The special funds are bit-by-bit add-ons to the basic or general funds.

In this sample of 23 districts there are 151,649 pupils who receive instruction and related services in 22 organized programs which receive special funds for extra costs in addition to the basic or regular programs. The total extra costs of these programs in these districts amount to

Table 8

Adequacy of Special Aids For Extra Costs of Special Programs

1973-1974
($ in Thousands)

District	No. Sp. Ed. Pupils (FTE)	Extra Costs to Dist.	Special Aids			Net Extra Costs to Dist.
			State*	Federal	Total	
Alsip	340	$ 143	$ 65	$ 0	$ 65	$ 78
Bloomington	1,276	684	365	80	445	239
Blue Island	454	296	182	74	256	40
Champaign	1,978	1,751	559	256	815	936
Chicago	121,032	111,633	20,612	33,701	54,313	57,320
Decatur	3,946	2,057	434	822	1,256	801
Downers Grove	87	114	215	10	225	-111
Edwardsville	833	413	188	66	254	159
Galesburg	1,303	464	184	104	288	176
Harrisburg	259	182	41	93	134	48
Jacksonville	1,044	631	158	94	252	379
Marion	1,063	674	270	118	388	286
Mattoon	878	394	106	74	180	214
Moline	1,314	816	189	155	344	472
Mt. Carmel	386	207	80	28	108	99
Mt. Vernon - Elem.	428	271	83	119	202	69
Mt. Vernon - H.S.	664	23	41	47	88	-65
Peoria	1,505	1,491	1,049	1,018	2,067	-576
Quincy	921	896	280	79	359	537
Robinson	545	151	34	26	60	91
Rockford	9,715	4,614	1,029	816	1,845	2,769
Rock Island	1,420	589	146	251	397	192
Vandalia	258	115	40	57	97	18
Totals	151,649	128,609	26,350	38,088	64,438	64,171
Percents		100	20	30	50	50

*Entitlements for 1973-74 but received in 1974-75.

$128,609,000. Twenty percent, or $26,350,000 of this total is provided from special state aids. Thirty percent, or $38,088,000, is provided from special federal funds. The other half of the extra costs is drawn out of general funds available to the local school boards.

According to these computations Downers Grove, Mt. Vernon High School, and Peoria districts receive slightly more in special funds than necessary to meet the extra costs of these programs.

If Chicago is excluded, because of its size, the picture in this sample changes. Among the remaining 22 districts the state provides special funds amounting to 34 percent of the extra costs and the federal government provides 26 percent, a total of 60 percent. Even among this group the net extra costs drawn from general funds available to local boards and allocated to special programs amount to 40 percent of the total. This method applies to the direct instructional costs as discussed at length in this chapter. The categories of public services and capital outlay are excluded. These methods are designed for funds to go to the district of the pupil's residence, the district with responsibility for operating programs or making arrangements for instruction in other districts or agencies.

Method 1: Full State Funding of Extra Costs

This method is based on the fact that the prevalence of need is unrelated to the local district's tax ability to support a statewide responsibility. Children of varying needs, and costs, are not evenly distributed among districts. Thus, state assumption of these variable costs would be the most direct and simple method to equalize this portion

of the total educational need. In Chicago the extra costs are provided as follows: 18 percent from special state funds, 30 percent from federal funds, and 52 percent out of general funds available to the Chicago Board of Education.

The following provisions would be necessary to implement this method:

1. Establish a formula representing a scale of cost differentials, applicable to all special programs, based on the unit value of 1.00 for grades 1-8 or other designated segment of the school, and related to the average size of instructional groups defined as appropriate to the needs of pupils. The type of formula for this purpose is illustrated in Chart III, with the computed scale of cost differential values illustrated in Table 5. The total allowable cost by the formula would be the product of the cost differential times the average per pupil cost in the basic (regular) program in grades 1-8. The extra cost would be the difference between the total computed cost and the basic amount.

   The formulas in this study are based on the unit value of 1.00 for the basic (general) program in grades 1-8. The computational base applicable to the cost differential and the subtrahend for determining extra costs in separate high school districts is the high school basic (general) cost divided by 1.25, the present weighting of high school pupil units in the general aid formula.

2. The local district, or other operating unit, would have freedom to provide a variety of instructional patterns ranging from self-contained groups for the severely handicapped to total mainstreaming with supplementary instruction in tutorial and small group arrangements.

3. The State Board of Education would be authorized to define instructional units of appropriate size and range in number of pupils as a basis for general information and accountability, and as a basis for computing extra costs of approved programs.
4. The principle of stability would be applied in the following manner: The average size of the instructional unit would be used for computing cost differentials to determine extra costs. Thus, the loss or gain of pupils within the established range during the year would not affect the amount of funds available to support the instructional unit.
5. These formulas are designed to include a sufficiency of overhead expenses of administration and supervision in the Joint Agreement Districts.

A comparison of illustrated formula allowances with actual extra costs is shown in Table 9. The total extra costs amount to $128,609,000. The formula allowances equal $108,446,000 or 84.3 percent of the actual amount. This figure is 34.3 percent above the present special aids (shown in Table 8).

It should be emphasized that the formulas can be adjusted up or down to yield more or less than the 84.3 percent shown in this illustration. The formulas do not have to be fixed to yield an amount equal to a particular appropriation each year. They could be set at a level higher than this requirement and used as a basis for allocating any appropriated sum.

Table 9

Comparison of Actual Extra Costs With Formula Estimates

All Special Education Programs

1973-74
($ in Thousands)

District	Actual Extra Costs	Formula Estimates	Difference	Amount of Formula Estimates Above Present Aids
Alsip	$ 143	$ 166	$ 23	$ 101
Bloomington	684	1,247	563	802
Blue Island	296	303	7	47
Champaign	1,751	2,840	1,089	2,025
Chicago	111,633	86,958	-24,675	32,645
Decatur	2,057	2,189	132	933
Downers Grove	114	138	24	-87
Edwardsville	413	341	-72	87
Galesburg	464	867	403	579
Harrisburg	182	262	80	128
Jacksonville	631	839	208	587
Marion	674	886	212	498
Mattoon	394	532	138	352
Moline	816	910	94	566
Mt. Carmel	207	297	90	189
Mt. Vernon - Elem.	271	260	-11	58
Mt. Vernon - H.S.	23	118	95	30
Peoria	1,491	2,572	1,081	505
Quincy	896	874	-22	515
Robinson	151	293	142	233
Rockford	4,614	4,495	-119	2,650
Rock Island	589	905	316	508
Vandalia	115	154	39	57
Totals	128,609	108,446		
Percent	100	84.3		34.2

Method 2: Full Cost Allowance in the General State Aid Formula

This method, like the first one, applies only to direct instructional costs. Assuming that the provisions for defining average size resource (instructional) units are the same as those in Method 1, the two methods would yield the same results for all districts below the critical levels of local taxable wealth for equalization.

For those districts above the critical wealth levels for equalization aid, special aids would have to be considered on some basis such as a flat grant, or a percentage of estimated total extra cost.

The choice between these methods rests on a fundamental state policy of equity. If Illinois maintains the present policy of limiting the input from local tax sources associated with a guaranteed expenditure level ($1260 at present), future increases of the expenditures will be largely full state funding.

The present special aids are distributed by procedures which do not take local tax ability into account. Thus if this method were adopted, non-equalization aid districts would either be denied special aids or some "grandfather" provision would be required to ensure a continuation of special aid to non-equalization districts. If the present policy is continued, these conditions argue strongly for the simpler and more direct approach of Method 1.

Method 3: Categorical Resource Component Allowances

This method is the type in use at present in Illinois. The procedure depends in principle on the definition of a special program and the

instructional load of a certified teacher. In addition there are guidelines to provide additional aid based on supportive or service staff.

This method, as used at present, can be improved by defining more completely the personnel and matériel components of instructional units for various groups of pupils in accordance with their needs. This purpose requires new information, in fact the same information system as previously discussed for Method 1.

The information that would be required to improve the present method, but maintain the principle of bit-by-bit component parts, would be essentially the same as discussed for Method 1. The reason for this is, as this study demonstrates, extra costs of special programs are not solely the result of adding "special" teachers. These costs result from greater staff input of teachers and other personnel of all types, so-called "regular" and "special."

Summary

The financing of special education is presented in this study within the context of the total system. The present method of providing special state and federal aids taken out of context gives at best only a partial view of what the schools are trying to do, and no basis for judging the adequacy of resources available to them.

A method of cost analysis is demonstrated to measure the differences among districts in prevalence of exceptional needs of pupils that require some extra costs as compared with "regular" pupils whose needs can be met at costs on an average per pupil basis. The problem of financing special programs of all kinds that have become defined in relation to earmarked state and federal aids should be viewed as part of the larger issue of measurement of educational need of the total system.

Illinois is a part of the national commitment to education as *the fullest possible development of every individual*. Start them early, move them along as best they are capable, and provide opportunities to keep them growing throughout life. This is the essence of the American commitment. Terms like pre-school education, early childhood education, vocational education, inservice education, adult and continuing education, and similar ones are only segments of the total picture focusing on a particular group or a stage of human experience.

The growth potential of the public schools to meet this commitment lies in coping with the diverse needs of individuals. These needs cannot be met by present methods of instruction merely by reallocating present

resources. They may require some reallocation, but also increases in resources will be needed for which no measures of quantities are available.

There are certain areas that will require special attention. The first is early childhood education. The age of entrance into appropriate schooling must be lowered. There is sufficient evidence from research and experimentation to show that the most critical years of educational development are from birth to about age nine. These are the years when problems grow, intensify, and then persist throughout life, unless prevented or corrected by proper diagnosis and treatment at the right time.

The second area is the broad range of handicaps and exceptionalities among pupils whom the schools are not giving adequate help. This area is posed in Chart I as the future development of a totally adaptive school system.

The third area of identification is vocational education. The data in this study suggest that this field may need a re-evaluation of its programs and resources.

The focus of this study is on 22 special programs in 23 school districts. The sample is considered adequate to assess the nature of special education, to understand the direction of future developments, and to consider financial policies.

To recap the picture in simple statistics we find the following in these 23 districts in the year 1973-74: There are 694,764 students in pre-school programs, kindergarten and grades 1 through 12. Those in pre-school and kindergarten half-day programs are counted in full-time equivalents (half of enrollment). Of this total, there are 151,649 pupils (FTE's) in 22 special programs.

If Chicago is excluded because of heavily weighting the average of this sample, the number of pupils in special programs drops to 16.7 percent of the total. The state average is perhaps somewhere between this figure and 22 percent.

Among the pre-school age children 0.5 percent are in head start or equivalent type programs. A small fraction of a percent, 751 children, are in pre-school programs for the handicapped. This is the category of children most urgently in need of diagnosis and treatment from birth.

A further delineation may be helpful by separating three programs, the compensatory (mostly federal Title I), bilingual, and gifted which constitute 13.8 percent of the total population in this sample. This leaves those who traditionally have comprised the "handicapped" group as 8.0 percent of the total population in the sample.

Another important consideration is the distribution of teachers who have responsibility for instructing these children. Among this group with 19 programs just mentioned as comprising 8.0 percent of the total population, 19 percent of the teachers are "regular" ones, while 81 percent are those with special certification and classified as "special." If we consider the 16,888 pupils in speech correction, consisting of the low and mild handicaps, their teachers consist of 73 percent regulars and 27 percent specials. Remove this program from consideration and the "regular" teachers consist of only 6 percent for the remaining 18 programs of greater handicap and resource inputs.

Thus speech correction and the three programs of compensatory, bilingual, and gifted programs have teaching staffs composed of about two-thirds "regular" and one-third "special" teachers. This combination may give a

close approximation for estimating additional resources for unmet pupil needs, recognizing that there are substantial numbers of children who belong in programs of higher resource intensity than these.

A special sample of 97 elementary and 43 high school "regular" teachers reported their need for special help in teaching one pupil out of six assigned to them. They ranked the needed specialized help in this order: social workers, psychologists, speech therapists, and teacher aides.

The conclusions from these staffing patterns are:

1. The responsibilities for dealing with individual differences are shared within the system and not limited to any specially designated group of staff members.
2. Funding procedures which are based on particular roles or staff categories include only part of the resource inputs.

An important caution should be stated in connection with these summaries. These data do not reflect the total treatment of pupil exceptionalities in these districts. There is no basis for estimating beyond the designated programs. On the other hand common knowledge confirms the existence of a great variety and depth of approaches to individual differences.

The summary of financing these programs is as follows: The total extra costs of 22 special programs in these 23 districts, above the basic costs equivalent to regular pupils, amount to $128,609,000. Twenty percent, or $26,350,000, of this total is provided from special state aids. Thirty percent, or $38,088,000, is provided from special federal funds. The other 50 percent is drawn from general funds available to local school boards.

Three alternative methods of financing special or designated programs are submitted for consideration in state policy deliberations. These are

(1) *full state funding of extra costs*, (2) *full cost allowance in the state aid formula*, and (3) *categorical resource component allowances* (the present method in use in Illinois).

The general question of adequacy of financial support of special programs is not addressed in this study for necessary resources beyond the comparative level of the basic or regular programs. After the state meets the needs for extra costs of these programs any further test of adequacy will be relative to the support of the basic or regular program.

CHAPTER II

SPECIAL EDUCATION SERVICES PROVIDED BY STATE AGENCIES

Robert A. Burnham

This section of the report is concerned with the roles of various state departments and agencies in the special education domain. The objective of this aspect of the study is to identify and inventory the direct and indirect educational services provided and/or funded by various agencies in the State of Illinois. There are three main subsections that elaborate on this portion of the study: the first is a general introduction to determine what are the state agencies' roles, the second is a description of their involvement, and the third summarizes the interrelationship of the state-level services.

Introduction

Seven state agencies are identified with some responsibility for special education services or funding in one form or another. These are the Departments of *Mental Health, Children and Family Services, Corrections, Public Aid, Public Health, Vocational Rehabilitation,* and the *Illinois Office of Education.*

This portion of the study was designed to obtain two types of information by questionnaire: (1) the number of exceptional children (ages 3-21) being provided direct and indirect educational services, and (2) the dollar expenditures involved for FY* 72 through FY 75. Although the Department of Children and Family Services, and the Illinois Office of Education were able to respond in part to the questionnaire, the form of agency data

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*This term means *fiscal year ending June 30, 1972*

did not lend itself to reporting in the categories requested without additional assumptions and extensive recalculation by respondents.

Apparently, State agencies do not centrally collect and summarize program oriented data except in a most general "bottom line" way. After incorporating suggestions of agency personnel, a second questionnaire (characterized by its utter simplicity) was developed. Data were sought on FY 75 only for the number of children served and dollars expended for administrative and instructional salaries, and for instructional materials and supplies. It appeared that even this simplified information could not be obtained at the department level. For instance, data on direct educational services provided by the Department of Mental Health were reported on questionnaires completed by a number of the 21 various zone centers and facilities under the agency's direction. These data were not available in the Department's central office.

State Agency Involvement in Special Education

Overview

This section presents a general overview of these agencies, followed by a detailed description of each one.

The State Board of Education is the primary state-level entity in the special education field. In addition to approximately $160 million in general state aid distributed to handicapped children under the jurisdiction of this Board from the common school fund, the state finances special education through a variety of categorical reimbursement and grant-in-aid programs to individual school districts, consortia, and other agencies. There are about $115 million in categorical special education appropriations for FY 75.

The Department of Mental Health provides considerable support to programs for handicapped children. Although the former is frequently cited as spending over $13 million for day care of handicapped children, we are able to identify only $1.5 million specifically targeted on handicapped children in community day care programs, plus $2.8 million for specific special education services to the handicapped at facilities and zone centers of the Department of Mental Health.

The Department of Children and Family Services operates three schools* for the handicapped in FY 75 at a cost of $7.6 million in services to blind, deaf, and crippled wards of the State. Day care programs under this Department also provide an estimated $3 million in educational services.

The other State agencies listed previously. Corrections, Vocational Rehabilitation, Public Health, and Public Aid provide only nominal special education services.

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*Illinois Braille and Sight Saving School, Illinois School for the Deaf, and Illinois Children's Hospital School

The State Board of Education

The State Board of Education, of course, carries the major responsibility for providing support for special education services in Illinois. In FY 75 the following programs and dollar amounts constituted the array of special education support administered by the Illinois Office of Education and channeled primarily to local school districts through reimbursement programs. The expenditure figures include supplemental appropriations for FY 75 added to the requests for FY 76. This categorical support is over and above the general state aid distributed to handicapped pupils on a WADA basis estimated at $160 million.

The various state supported programs funded under the jurisdiction of the Board are as follows:

1. Personnel reimbursement for necessary staffing of special education programs and facilities. The State provides $6,250 per professional worker and $2,500 per paraprofessional, authorized under 14-13.01 of the School Code.

   FY 75 expenditures - $69,225,000 est.

   Pupils served -- 270,000 est.

2. Transportation of Handicapped Children. Basically the State reimburses 80% of the cost of transportation for such children.

   School Code 14-13.01

   FY 75 expenditures - $22,348,000*

   Pupils served -- 50,000

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*Reflects an audit adjustment increase of $1.5 million for special education transportation claims by the Chicago Public Schools included in FY 75 supplemental appropriations.

3. Special Education Building Program. The State provided qualifying districts $1,000 per professional special education worker for facilities construction. School Code 14-13.02. (Pending legislation proposes to transfer special education facilities construction to the Capital Assistance Program.)

   FY 75 - expenditures - $9,658,000

   Pupils served -- not available

4. Tuition Reimbursement for Children Attending Private Special Education Facilities. The State (School Code 14-7.02) authorizes $2,000 maximum per pupil with $600 from the local district and $1,400 from the State.

   FY 75 expenditures - $8,700,000 est.

   Pupils served -- 6,600 est.

5. Reimbursement for Extraordinary Public School Services and Facilities for Handicapped Children. (School Code 14-7.02a) The State authorizes $2,000 maximum per pupil.

   FY 75 expenditures - $2,324,000 est.

   Pupils served -- 2,122 est.

6. Reimbursement for Handicapped Orphans and Wards of the State. The State provides full reimbursement for the provisions of special education services. (School Code 14-7.03)

   FY 75 expenditures - $2,075,000 est.

   Pupils served -- 3,100 est.

7. Occupational Education for the Handicapped Secondary School Pupil. This is a joint state-federal program administered by the former

Department of Vocational and Technical Education.

FY 75 State expenditures - $2,000,000 est.

Pupils served -- not available

8. There are relatively minor programs providing traineeships and scholarships to approximetely 175 prospective special education teachers under Article 30 of the School Code amounting to $500,000 in FY 75, and funds for acquisition of special education instructional materials estimated at $200,000.

Federally funded programs operated under the jurisdiction of the Board are as follows:

9. Program for the Educationally Disadvantaged. Title I, ESEA; PL 89-10. The amount available to handicapped children is unknown.

FY 75 expenditures - $84,060,000*

10. Programs for (a) the neglected and delinquent and (b) migrant children are funded under Title I, ESEA; PL 89-750.

FY 75 expenditures - $1,396,400*

11. Programs for Handicapped Children in State Operated Institutions. Funded under Title I, ESEA; PL 89-313.

FY 75 expenditures - $5,479,400*

12. Occupational Education for the Handicapped Secondary School Pupil. (Estimated federal share of Item 7)

FY 75 expenditures - $1,200,000 est.

13. Title III and Title VI, ESEA also provide monies for the support of programs for the handicapped child. Specific amounts and number of pupils served are not ascertained.

All of these funds are summarized in Table 10.

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*Shared state and federal funds.

Table 10

Illinois Special Education Support Programs

Special Education Program	Appropriations (in 000's) Actual FY 73	Actual FY 74	Estimated FY 75	Budgeted FY 76
Personnel Reimbursement	$ 65,750	$ 58,500	$ 69,225*	$ 97,500
Transportation of Handicapped	NA	15,728	22,384*	25,000
Special Education Building	6,850	8,038	9,658*	------
Tuition Reimbursement-Private Facilities	5,237	7,000	8,700	7,000
Extraordinary Service-Public Schools	------	------	2,324*	2,500
Orphanage Tuition Claims	------	------	2,075	3,500
Special Education Traineeships	500	489	500	250
Special Educational Equipment and Materials	160	188	200	200
Total State Support	$ 78,497	$ 89,943	$115,066*	$135,950
Federal Support Title I, ESEA (combined)	$ 61,567	$ 76,144	$ 76,144	$ 86,181

Source: Governor Walker's Accountability Budgets for Illinois for FY 75 and FY 76.

* Includes FY 75 supplemental appropriations.

The Department of Mental Health
and Developmental Disabilities

The Department of Mental Health makes an important contribution toward the provision of special education services in the State of Illinois. Its total FY 1975 appropriation was slightly more than $347 million. Approximately $106 million was allocated for Developmental Disabilities and $121 million for Mental Illness (An Accountability Budget for Illinois: FY 1975, p. 29). Exactly how much of this appropriation was spent specifically on special education or education in general is a central question which this study cannot answer.

Residential treatment and intensive rehabilitation services are offered by this Department to approximately 15,000 people in its 27 institutions, which are located in seven geographic regions. Since the focus here is on special education services to persons under the age of 21, only 19 hospitals and zone centers (out of the 27 in total) appear to have programs germane to this study. This Department also supports a broad range of community operated facilities, serving upwards of 90,000 people this year. This Department provides services to special education as follows:

1. Community support programs, such as state grant-in-aid program for Community Day Treatment Centers.
2. Educational programs at mental health hospitals, zone centers, and facilities. These are funded out of general State revenue and Federal funds (Title I, ESEA; PL 89-313).
3. Programs for the handicapped, including the deaf-blind, funded by Federal programs, e.g., Education of the Handicapped, Title VI, Special Education component included in Item 2 above.
4. Interim care grants.

The first two service programs mentioned above will be analyzed in more detail:

1. *Community Support Program:* One component of the Department's community based program involves Community Day Treatment Facilities which provide special education services, among others, in several areas of the state. In FY 75 there are some 27 Community Day Treatment Programs. Fifteen of these involve grants to private community facilities for special education services to a total of 840 handicapped children. There are nearly $2.5 million in state monies awarded to the 27 community programs, including $1,518,661 awarded to the 15 community facilities listed in Table 11. This table also shows the number of teachers employed at each facility and their instructional salaries.

2. *Special Education Services at Department Facilities:* Some 19 hospitals and zone centers operated by the Department provide services to handicapped children. In FY 74 there are 5,499 children served. The majority of these children are classified as subtrainable mentally retarded or as emotionally disturbed. For purposes of gathering information on these services, the definition of special education is narrowed to those developmentally disabled and mentally ill children who can be given classroom instruction or vocational training. This definition largely excludes the severely and profoundly retarded, since the "education" they receive is difficult to separate from custodial care. We believe the data reported in Table 11 cover clients of the Department who are educable or at least trainable.

Since fiscal information in the central office of the Department consists only of aggregate dollar amounts that are not identified with specific functions such as special education, it was necessary in this study to seek

Table 11

Department of Mental Health Grant-In-Aid Awards
Community Day Treatment Programs

Fiscal Year 1975

Name of Facility	No. of Clients	Amount of Award	No. of Teachers	Teachers' Salaries
Rimland	20	$ 50,000	14	$ 65,355
Infant Welfare Society	125	42,200	6	44,993
STEP, Inc.	69	182,000	20	184,975
Larkin Home for Children	10	48,500	2	20,000
Loyola University Guidance Center & Day Care	29	63,066	1	13,492
Christopher House	90	147,000	5	52,009
Jeanine Schultz	55	74,500	15	114,600
South Central Community	55	180,800	7	54,793
Potential School	46	122,908	9	67,790
Beacon Therapeutic	68	185,250	8	63,249
Oak Therapeutic	100	150,000	2	16,942
Positorium	75	24,000	7	62,500
Libra	33	99,180	4	10,650
Central Illinois Society for Emotionally Disturbed	15	49,030	5	35,700
Children's Center for Behavior Development	50	100,227	3	25,320
Total	840	$1,518,661	106	$ 832,368

Source: Department of Mental Health, Chicago

further information in the 19 zone centers and hospital facilities having special education programs. Thirteen of the facilities responded by the date of this report and the information they provided is summarized in Table 12.

Table 12

Expenditures for Special Education
at
Thirteen Facilities or Zone Centers[1]

Department of Mental Health FY 75

Expenditure Category	State Funds	Federal and Other Funds[2]	Total
Instructional Salaries	$2,097,332	$634,714	$2,732,046
Instructional Materials and Supplies	43,562	22,676	66,238
Total Instructional	$2,140,894	$657,390	$2,798,284
Number of (headcount) clients served		2,389	
Per capita instructional cost		$11,713	

It should be noted that the Title I, ESEA funds listed in Table 10 are monitored and evaluated by the Illinois Office of Education through its Program Review and Documentation Unit, Department for Exceptional Children. The FY 74 annual evaluation report, entitled State of Illinois Report on Title I, Public Law 89-313 (Springfield, Illinois, OSPI, 1974), represents

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[1] A. L. Bowen Children's Center, Anna State Hospital, Chester Mental Health Center, Dixon State School, Elgin State Hospital, Galesburg State Research Hospital, Jacksonville State Hospital, Kankakee State Hospital, Lincoln State School, McFarland Zone Center, Tinley Mental Health Center, Warren G. Murray Children's Center, William W. Fox Children's Home.

[2] Title I, ESEA and DVTE monies primarily.

an excellent descriptive evaluation of Title I programs for the handicapped in state-supported schools. The report also points up the parallel delivery of services through public and non-public agencies since these handicapped programs are operated by the Department of Mental Health, Department of Children and Family Services, and non-public consortium arrangements. Federal funds for programs for the handicapped in state institutions (Title I, ESEA; PL 89-313) amount to $5.4 million in FY 75.

The Department of Children and Family Services

This Department serves as the state guardian for over 26,000 children, including some handicapped individuals. This department operates four schools to educate and rehabilitate blind, physically handicapped, deaf, and emotionally or socially maladjusted children. The Braille and Sight Saving School at Jacksonville, Children's Hospital School in Chicago, School for the Deaf in Jacksonville, and the Soldiers' and Sailors' Children's School at Normal, respectively, serve these handicapped children.

Additionally, about 50 children are served at three State funded facilities: Maryville Facility (12), Southern Illinois Childrens' Services Center (12), and at Herrick House (25). FY 75 expenditures for these three facilities amount to $863,000.

In FY 75 there is also $6,873,600 allocated for purchase of "day care services" a portion of which (an unknown dollar amount) is expended for out-of-home care, counseling, and therapy for handicapped children.

The consolidated data for all services of this Department to children ages 5-17 inclusive for a four year period, and the direct educational services being provided to handicapped children at three of its schools are shown in Table 13.

Table 13

Services Provided for School Age Children
by the
Department of Children and Family Services

	Number Served and Operating Expenditures (Fiscal Year)			
	1972	1973	1974	1975
Total Number of Children (Ages 5-17) Served by the Department	20,014	17,219	18,306	17,900
Number of Handicapped Children Served in Three Schools* Operated by the Department	772	773	806	771
Total Operating Expenditures of these Schools (Thousands)	$ 6,647	$ 6,699	$ 6,770	$ 7,608
Average Annual Cost per Child at these Schools	$ 8,610	$ 8,666	$ 8,399	$ 9,868

*Illinois Braille and Sight Saving School, Illinois School for the Deaf, and Illinois Children's Hospital School.

Source: Department of Children and Family Services, Springfield.

It is estimated that there are between 2,000 and 2,500 children under 21 served by the Department of Children and Family Services, including the 800 or so handicapped children mentioned earlier. The vast majority of the funding for these programs is from state general revenue. However, there are six funded Title I, PL 89-313, projects in FY 74 serving about 400 emotionally disturbed, crippled, or deaf children at departmental schools and facilities.

According to this Department, the remainder of the total group of children under its care attend public schools where their attendance is reported

through local school districts. The Department occasionally places some of its handicapped wards in private facilities with the expectation that the local school district will pay the tuition. When the local district is unable or unwilling to pay the tuition, the Department must, by court order, cover the extra cost. The aggregate cost of such contingencies is unknown.

The Department of Corrections

This Department through its Juvenile Division operates educational programs at ten youth camps and/or centers across the State for about 1,000 juvenile offenders. What proportion of the program is targeted on emotionally and socially maladjusted and educationally disadvantaged youths is not reported. The Department currently does not provide diagnostic services for incoming wards to identify special education needs. There are, however, Title I, ESEA projects for 893 neglected and delinquent children at 13 Department of Correction facilities totaling $536,899 in FY 1975. A similar series of projects serve 808 children in FY 74 for a budget allocation of $490,817.

Division of Vocational Rehabilitation

This agency, operating under the Rehabilitation Act of 1973, does not appear to participate directly in the provision of special education services. The Department's Statement of Policy for Use of DVR Monies states that "no DVR funds can be expended for any aspect of the 'traditional' academic program; subsidizing the salaries of certified academic personnel or the purchasing of educational materials necessary for the teaching of academics." Nonetheless, the Secondary Work Experience Program of this Department has an FY 75 budget of $2.3 million and $1.9 million of this is reportedly allocated for servicing some 7,000 clients in the Illinois public schools. Most

of the Department's money is from federal sources (80% in FY 75). If a more refined accounting and reporting system were available we might determine what proportion of the Department's total expenditures reached the handicapped child target group. For example, the funds are used to pay pupil salaries, subsidize employers, and cover wages of non-academic supervisors involved in realistic work experiences. Special education pupils are appropriate recipients of such benefits. The Department also will pay transportation costs to and from the job of pupil-clients in the work experience program. A local school district may be reimbursed for 80 percent of the cost of transporting special education pupils in the rehabilitation program and the Department will cover the remaining 20 percent. The dollar amount of such service is not determinable.

Department of Public Health

Only indirectly, through its vision and hearing screening program, does Public Health provide "special education" services. The immunization program which provides vaccines to local innoculation centers provides some incidental benefits to handicapped children.

Department of Public Aid

This department has no impact on special education, except indirectly through its Medichek and Medical Assistance Programs. Both programs provide state and federal monies for medical screening and care for clients eligible under the program for Aid to Families with Dependent Children.

Office of Child Development--Department of Health, Education, and Welfare

An additional source of educational funds is the Federal Head Start Program for pre-schoolers. Although Head Start is considered outside the

scope of this study, it does provide assistance to mildly handicapped children and aids in early identification of disabilities.

Non-public Special Education Facilities

The State also is involved in funding private special education facilities which serve children with particularly severe and low prevalence disabilities. Profoundly handicapped youngsters who cannot obtain appropriate care and education in public schools or public institutions are placed in private facilities. These non-public facilities may receive tuition payments from several sources: Tuition Reimbursement for private facilities (14-7.02), Orphanage Act claims (14-7.03) representing state dollars, federal money through Title I, ESEA (89-313), and from several agencies, e.g., the State Board of Education, the Department of Mental Health, and the Department of Children and Family Services.

Commencing in FY 74, Title I, ESEA (89-313) funds for handicapped children in state institutions could be paid out by Illinois Office of Education to private day care centers which were part of some 14 consortium arrangements set up around the State. These facilities have to be receiving state funds under Section 14-7.02 and be in compliance with promulgated rules and regulations of the State Board of Education covering facilities for handicapped students. Thus, the overlap in funding is a necessary condition for Title I support. As of FY 74 there are 14 consortia projects funded under PL 89-313 in a total amount of $2,032,718. Twelve of these 14 groups reportedly serve slightly over 2,000 children, chiefly between the ages of 3 and 12. Three-fifths of the children are classified as subtrainable mentally retarded. See State of Illinois Report on Title I, PL 89-313 (Springfield: Illinois Office of Education, 1974)

The overlap in private facility funding through the Department of Mental Health and the Illinois Office of Education raises some serious questions concerning functional effectiveness. Virtually all of the 120 facilities supported by the former department grants also receive reimbursement from the Illinois Office of Education under the tuition reimbursement program (14-7.02). Once again, in the absence of a reporting and accounting system that would provide information such as identification of clients, an unduplicated count of persons receiving services, and a reporting of the allocation of funds that would identify the pyramiding of support, the picture is vague and incomplete. The problem of consistent and accurate reporting by governmental agencies is minor when compared to the accounting and reporting problems associated with myriad private facilities banded together in consortia.

Summary

It is frustrating to attempt a description of the scope and magnitude of special education services provided across the State of Illinois by various governmental agencies. While some fairly reliable data on fiscal resources in an aggregrate sense can be gathered, the figures on clients served (and not served), information on the nature of services, and on the efficacy of various programs are either questionable or totally lacking. Overall, the special education delivery system as it now exists is kindly described as chaotic. Our real concern is that despite the millions of dollars allocated, there are many handicapped children still denied access to essential services. It is difficult for agency personnel to transfer children from one service to another. Frequently, there is no advocate concerned with a specific child's welfare.

The overlapping of services conceals an ancillary problem. If several agencies have joint responsibility, it is easy for each to shirk direct responsibility. The assignment of responsibility for operating residential schools and performing educational services is frequently an historical accident rather than the consequence of educational or administrative reasoning. There is no mechanism to bring together the best inter-disciplinary knowledge to diagnose children's needs, to prescribe treatment, and to follow-up for evaluation of progress.

CHAPTER III

SPECIAL EDUCATION AND ASSESSMENT OF PUPIL NEEDS

Robert A. Henderson

Conceptual Nature of Special Education

The provision of educational services for handicapped children began in the early 1800s with the establishment of the American School for the Deaf in Hartford, Connecticut. By the mid-1800s, special education consisted of state residential schools for the visually handicapped and hearing handicapped children, plus "asylums for the feeble-minded."

By the turn of the century, most large cities had developed special schools for orthopedically handicapped children and those with chronic health problems such as tuberculosis and orthopedic handicaps due to polio, rickets, and similar conditions. Immediately following World War II, Illinois and most other states enacted broad legislation providing for a wide range of services to mildly and moderately handicapped children within the public schools. The current trend in special education is to correct some of the evils produced by earlier delivery systems through increased emphasis on the handicapped child being a part of, not apart from, the mainstream of public education.

Thus, historically it is understandable why the various kinds of services available for handicapped children are administratively diversified, and the financing plan for each uncoordinated with the other. It is time that the State of Illinois, by legislative action, clarify the State's philosophy in regard to the education of the handicapped and the organization of the delivery systems become an integrated, coordinated

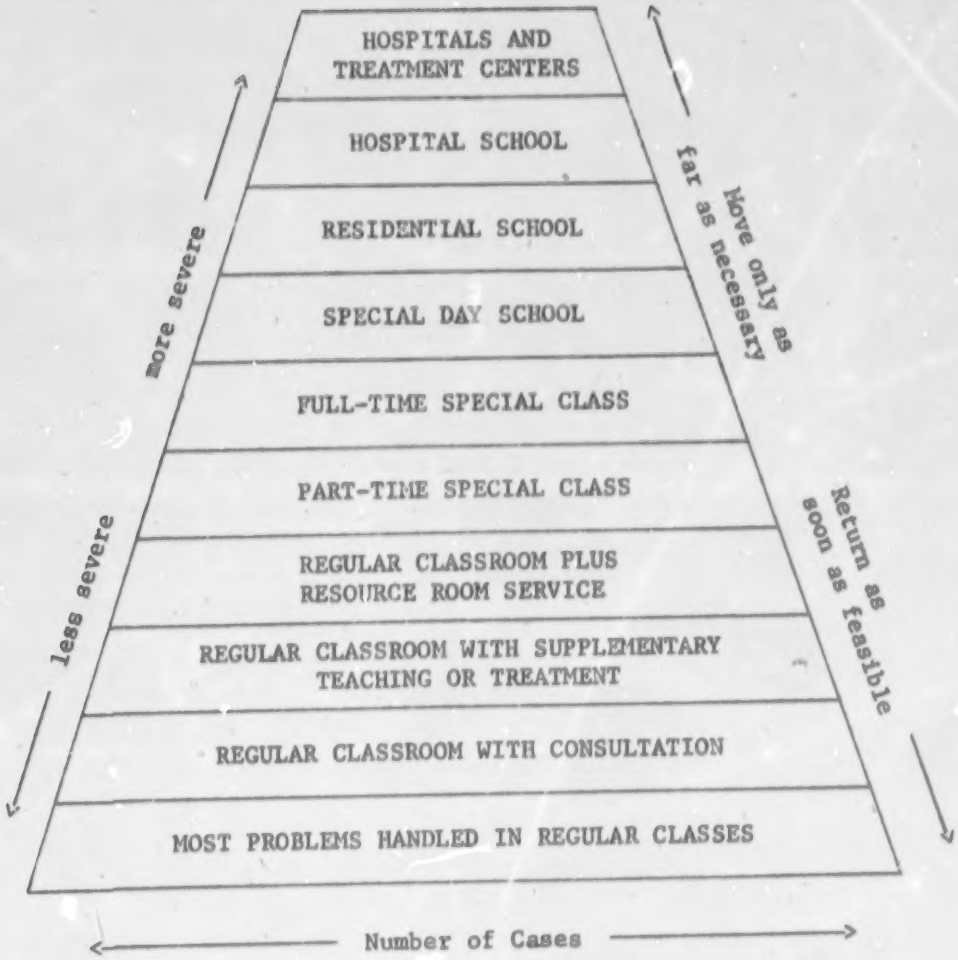
effort. Only if this is done can financing of special education programs, whether the child is in a regular class being served through an itinerant or resource room service, in a part-time special class, in a special school within the school district or within a joint agreement program, in some regional program for low-prevalence handicapping conditions or in a state or private day or residential educational facility, be related equitably to the costs involved and not penalize the parent or the resident school district financially if the child's needs require a program different from the one currently being attended.

Special education today must be seen as a continuum of services capable of delivery services across the entire range of severity of handicapping conditions. One model for visualizing such a continuum was provided by Reynolds' framework (Exceptional Children, March 1962).

Reynolds addresses the degree of severity of handicapped, meaning the educational implications--not medical or orthopedic severity--as the basis for defining the needs of children. He provides a dynamic placement system (right side of the framework), cautioning the schools to move the handicapped child up the framework into more and more restrictive placement alternatives only as far as necessary, and requiring that continual reassessment be accomplished so that the child may be returned to less restrictive alternatives as soon as feasible. While we did not have the terminology at the time Reynolds produced this framework, such requirements now come under the doctrine of least restrictive alternatives, as contained in recent federal court decisions and U. S. Office of Education guidelines relating to Title VI, EHA funds as required by Public 93-380.

A FRAMEWORK FOR CONSIDERING SOME ISSUES IN SPECIAL EDUCATION*

Maynard C. Reynolds



*Exceptional Children, Vol. 28, No. 7, March, 1962, p. 368.

Probably due to the historical growth of special education programs, plus the large number of smaller school districts, many of them serving only elementary age or high school age children, it has not been economically feasible nor educationally sound for school districts to develop a comprehensive program of special education services solely for handicapped children who are residents of their district. In order to provide such services it is necessary to establish cooperative programs (known as joint agreements) with nearby school districts. For low prevalence handicapping conditions even these arrangements are not sufficient, and "super joint agreements" or regional low prevalence programs have been developed. With such joint agreements came separate administrative structures for special education. Thus, a current criticism of special education is that it fails to adhere to the doctrine of least restrictive alternatives. Children once placed in special education programs operated by joint agreements are seen as no longer the local school district's responsibility. They have been identified, labeled, and placed in a special class or special school, to which the local district contributes transportation and funds, but with which officials in the district have little contact, and almost no control. Thus, the re-integration of handicapped children once placed in special facilities becomes difficult, and in some cases impossible.

Any changes in state financing of special education should take cognizance of the need for a single conceptual base for the delivery of special educational services to handicapped children, regardless of severity of handicap. The plan should encourage the application of the doctrine of least restrictive alternatives and should encourage the development of a

continuum of services with emphasis on continual re-evaluation of the child's educational needs, and the delivery of those services as close as possible to non-handicapped children within the regular educational setting.

Emerging Trends

Since enactment of House Bill 1407 by the 1965 Illinois General Assembly, several trends which should affect the State's plan for financing special education, are evident:

1. Changing populations served by the public schools. Chart V identifies the resident patients of mental health and mental retardation facilities from 1969 through 1973 in Illinois. It will be noted that both the number of children under the age of 13 as well as the total number of children served by residential facilities operated by the State Department of Mental Health decreased over this period. Since both state and federal incidence figures depict steady to increasing numbers in both categories, this figure can only indicate that the public schools are serving more of the moderately and severely handicapped population. The confirmation of this can be found in longitudinal data recorded in the Illinois Office of Education on the numbers of handicapped children served in low prevalence centers and by expenditure of state funds for severely handicapped children served in private facilities, or in public school programs designated as requiring "extraordinary" special education costs.

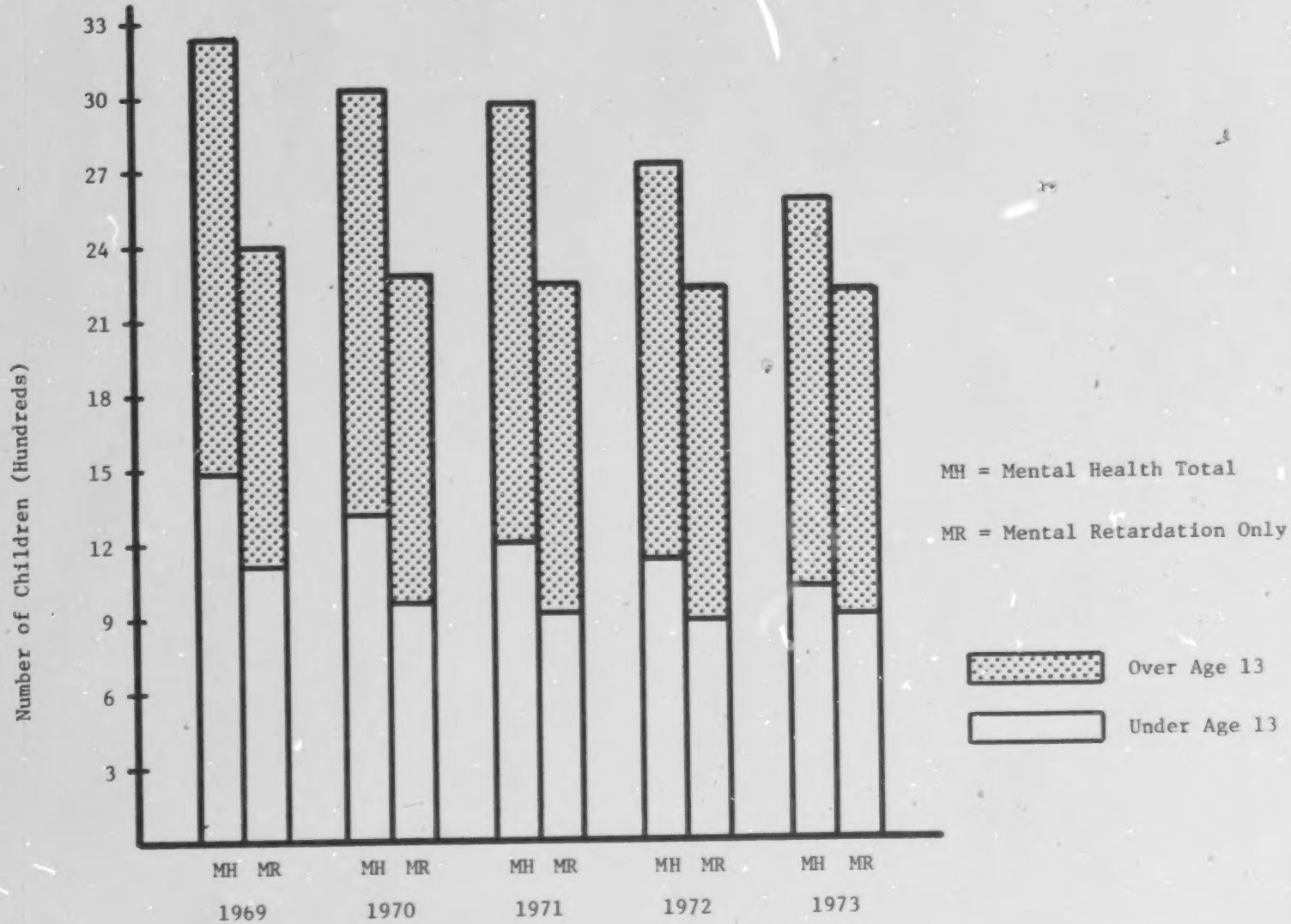


CHART V: RESIDENT PATIENTS OF MENTAL HEALTH AND MENTAL RETARDATION FACILITIES BY BROAD AGE GROUP FOR 1969-1973

Source: Department of Mental Health, State of Illinois, Annual Reports

2. The distribution of handicapped children (i.e., the prevalence, or number per school population base) is not uniform across school districts. This is due to a variety of factors, such as (a) the social-economic status of a community which will affect the etiology and incidence of certain handicapping conditions; (b) selective migration of families with a handicapped child to live in a school district or joint agreement with a program of recognized quality; (c) deliberate placement of handicapped children in foster homes by the Department of Children and Family Services based both on the quality of the foster parents available and the educational services of the resident school district.
3. The educational definition of handicapped children as provided by legislation and guidelines of the Illinois Office of Education are essentially circular in nature. They determine eligibility on the basis of the child's being unable to profit fully from regular education. Thus, the higher the quality of the regular education, the fewer number of children with mildly handicapping conditions who will need special educational services, and thus the prevalence will decrease inversely to the quality of the regular education program, at least for mildly handicapped children. A common example is a child with an IQ score in the upper seventies who moves from a poor school district with minimally trained teachers and a high pupil/teacher ratio to a wealthy district with master teachers, low pupil-teacher ratios plus excellent supportive services such as supervisors, instructional

materials centers, etc. In the former school district the child is clearly classifiable as "educable mentally handicapped." However, in the latter school district with the teacher providing individual attention, the same child might well be able to achieve to his maximum potential without any special educational services other than that being provided as a part of the regular educational system. In the latter case the child could not be classified as "educable mentally handicapped."

This illustration should dramatize the inter-relationship of regular and special education. In a limited way for mildly handicapped children, the better the quality of regular education, the lower the prevalence and the less restrictive the special education requirements. Note the ironic dilemma: the rich district with excellent education programs will have fewer handicapped children requiring special education programs than the poorer district which is least able to afford the cost differential of such special education programs.

4. Greater mainstreaming of the handicapped in all areas of society is evident. The child's handicapping condition rarely is isolated to school problems, but also affects the child's parents, his relationship with peers, coordination of efforts between non-school public and private agencies, etc. Thus, a comprehensive special education program within the public schools must include elements of a non-educational nature such as extensive early screening and identification programs, extended home-school liaison and parental counseling and guidance, coordination and

liaison with medical, mental health, university clinic and other private and public community agencies, as well as residential schools.

5. Increasing use of alternatives to special class placement for the delivery of special education services to mildly handicapped children. Application of the doctrine of least restrictive alternatives requires the existence of resource rooms and itinerant teacher programs serving as supportive personnel to keep the mildly handicapped child in the regular classroom for most of the day. Special materials and techniques needed are supplied by the special educator, who also provides direct service to the child in terms of diagnostic/prescriptive/remedial teaching. Such programs require new role relationships for regular teachers, special teachers, the building principal, and consultant/supervisory personnel.

Screening, Identification and Diagnosis of Pupil Needs

For at least some handicapping conditions it can be clearly demonstrated that the earlier the condition is identified and remedial measures instituted, the higher the child's educational, social and vocational potential. The clearest example comes from the field of the hearing impaired, where early diagnosis, maximum utilization of residual hearing, specialized preschool education plus parental counseling and home training can improve enormously the prospects of a child in the severe to profound hearing loss ranges, as compared with a child not diagnosed until five or six years of age.

Children with milder handicapping conditions, often thought by their teachers to be "lazy" or "stubborn" may benefit from early diagnosis and treatment. For example, ways of overcoming specific handicaps are seating the child so that the ear with the best hearing is toward the class, moving the child with distant vision problems closer to the front of the room, or providing the child with an auditory perceptual problem with a supplementary reading program stressing visual and tactual reading methods.

Illinois law wisely provides for screening all children chronologically aged three and older to identify handicapping conditions. By this means the most obvious handicapping condition should be identified and provision for services made immediately. Unfortunately, instruments are not available with appropriate sensitivity to identify mildly handicapped conditions, or to predict academic disabilities in three, four and five-year-old children.

A very important concept to remember, also, is the dynamic nature of a child's growth pattern. Contrary to popular belief, a child's IQ is not fixed and unchangeable. Many factors affect a child's performance on a given test on a given day. From Kirk's study of early education of the educable mentally handicapped (1960) it was discovered that IQ scores of children from low socio-economic backgrounds would change by ten points or more upward from a pre-school to a second grade testing time. Even more positive changes could be effected if (1) the child was in a special pre-school program, and (2) the child was removed from the low socio-economic home and placed in a middle-socio-economic class foster home.

Blind children seldom acquire improved vision through educational programs. They do, however, change in terms of the educational severity

that their loss of vision imposes. Once able to read braille and use talking books, move about independently by means of specialized mobility training, and can communicate with sighted persons by means of a typewriter, the blind child can receive most of his education in a regular classroom. His proficiency in braille can be maintained by means of an itinerant specialist who would also assist the regular teacher in obtaining needed braille books, recordings, etc.

Thus, identification and diagnosis should occur as early as possible, and re-assessment should be a continual process so as to identify a changing educational need and to make necessary revisions in the delivery of special educational services.

Note that the emphasis of these remarks has been toward individual need assessment: determination of the child's educational strengths and weaknesses, diagnosing the underlying psychological correlates of communication deficits, and evaluation of change requiring a shift to a less restrictive alternative of delivering the needed special education services. Except for statistical, administrative purposes, children should not be fixed with a categorical label, especially in the case of mildly and moderately handicapped children who may be served in the regular classroom with supportive services. Such labels often stigmatize the child, causing peer relationship problems, giving false expectations to parents and failing to help the classroom teacher in working with the child.

The emphasis in identification and diagnosis should be on diagnosing the educational needs of the child in terms that the classroom teacher can understand and utilize in providing an individualized program of instruction.

All of this will require both improvement in quality and quantity of diagnostic services, currently available in only a few of the wealthier school districts and joint agreements in Illinois.

The current rules and regulations governing administration of special education (IOE, October 1974) have moved a long way from the day when a psychologist, based upon an hour or so of psychological testing could classify a child as educable mentally retarded and declare him eligible for placement in a segregated, special class for the EMH. Instead a case conference, with input from educators, social workers, psychologists, and other diagnosticians is required before an educational plan is developed. The parents, often ignored in the past as sources of diagnostic information, are now working partners--or should be--with the schools in the determination of their child's special educational needs and the educational services required.

It should be recognized that improvements in service delivery to match the intent of the law, rules and regulations, will come very slowly unless funding is provided for inservice education across a broad spectrum of personnel dealing with the handicapped child: the regular teacher, the building principal, other school administrators, special educational teaching and diagnostic staff, parents, school board members, and the lay public who eventually approve or reject such expenditure of funds by election of representatives and acceptance or rejection of school funding issues.

CHAPTER IV

EDUCATION OF PRE-SCHOOL AGE HANDICAPPED CHILDREN

Merle B. Karnes

The pattern of special education, almost since its inception, has been to provide special programming for the handicapped child only after he has demonstrated the inability to cope with or adjust to the offerings of a regular class. A handicapped child might attend a regular class for one, two, or even more years before being referred as a candidate for special education. During this time, he experienced a preponderance of failures. His self concept was undermined and he developed little confidence in his ability to succeed. He learned to avoid new tasks and generally became poorly motivated to learn. He perceived his peers and teachers as unaccepting and generally felt "out of step" with peers who were developing normally--intellectually, socially, emotionally and physically. When he was finally provided with special education, the ill effects of his previous experiences in school had to be counteracted and more positive attitudes and habits had to be established if he was to develop his potential to its fullest. Implicit in this situation were teaching challenges but also goals impossible to achieve.

An exception to the case outlined above is the low-incidence handicapped child who is more readily identified--the blind or deaf child, the child with marked mental retardation or severe emotional disturbance. Even then, low-incidence handicapped childr[illegible]ot come to the attention of the school prior to age seven, the compulsory age for school entrance in the State of Illinois, despite the fact that our state has had mandatory legislation for

a number of years to provide special education below age six and as young as age three for some groups of low-incidence handicapped children. This lag in services has often been attributed to the unwillingness of parents to demand services for their children or to acknowledge to the larger community the presence of a handicapped child within the family.

In recent years (1972) the Illinois legislature has passed mandatory legislation to educate all handicapped children as young as three years of age. Currently, however, the practice is to provide for the young, severely handicapped child (low incidence) whose handicaps are obvious, and little or no effort has generally been made to identify the mild or moderately handicapped child at an early age. Indeed, there are only a few examples in the state of comprehensive plans for screening, identification, diagnosis, and programming for those hard-to-locate children in the mild and moderately handicapped range.

This chapter attempts to answer two critical questions regarding early special education: "Why early education for the handicapped?" and "What constitutes an exemplary program for young handicapped children?" A third question relates to the responsibilities of institutions of higher learning in promoting early education of the handicapped, "How can universities help public schools to provide improved programming for young handicapped children?"

Why Early Education for the Handicapped?

For over twenty years I have been concerned about the number of children in the public schools who need special education. In the late 40s and early 50s I worked with Dr. Samuel A. Kirk, former director of the Institute for Exceptional Children at the University of Illinois, as the director of an

educational program for young children (ages 3-6) who were functioning in the mentally retarded range. This experience, coupled with the research findings of the study, convinced me that many children who are in special classes or who receive special services would not need such services had they received special help during the early years.

I was director of Special Education in the Champaign Community Unit IV schools for twelve years prior to joining the faculty of the University of Illinois in 1965. During this administrative career I discovered that 70 to 80 percent of the children in these special classes for the mentally retarded were from low socio-economic homes and that the large majority of these children were black. This latter fact was especially disconcerting since only 12 percent of the community population was black. This finding was by no means peculiar to the Champaign schools. Children from low-income families had at this time no opportunity to participate in pre-school programs and came to the first grade with marked developmental lags. Experiential deprivation affected their intellectual functioning, their cognitive-language development, and their social-emotional development. Developmental lags in the physical area were also observed. School failure for these children was likely if not inevitable.

In 1965 at the University of Illinois my associates and I developed a program for educating young disadvantaged children which has proved to be a preventive approach for children who are prone to need special education. Among the various studies we conducted was one which investigated the effects of the program we had developed on children in low-income families who were functioning in the intelligence range of 37-75 (mean 66) as

measured by the Stanford-Binet. After one year of intervention, the children in this study achieved a mean IQ gain of 21 points which resulted in a mean IQ of 87.5. Thirteen of the 15 children in this study made Binet IQ gains which placed them in the average range of intelligence. A five-year follow-up study revealed that none of these children had been placed in special classes (Karnes, 1973).

The child with the lowest IQ (37) was a Caucasian child with five siblings who were in classes for the mentally retarded--either trainable or educable--in the Champaign schools. This child was provided with the intervention program we had developed for a two-year period at which time he obtained a Binet IQ of 84. At the end of the first grade he was functioning at the 3.3 grade level in reading on the California Achievement Tests and at grade level in arithmetic. A follow-up study at the end of third grade revealed that this child had continued to function at grade level in the mainstream of the school.

The findings of other researchers who have deliberately studied the effects of special programming on the development of children from low socio-economic level homes who functioned in the mentally handicapped range support the contention that mental retardation among this group of children can be prevented (Weikart, Deloria, Lawser and Wiegerink, 1970; Hodges, McCandless and Spicker, 1970). It must be noted, however, that the programs provided the children in all of these studies were especially designed to alleviate developmental lags and that precise planning, including matching activities to the developmental stage of the child, were deemed critical. The findings of these studies, therefore, cannot be generalized to include <u>all</u> pre-school programs.

In 1970 we at the University of Illinois received a grant from the Bureau of the Education of the Handicapped for the development and dissemination of a viable program for multi-handicapped children (ages 3-5) from all socio-economic levels. As one of the First Chance network programs, we sought the most handicapped children in a 35-mile radius surrounding Champaign-Urbana. The children we served had either not been admitted to existing programs or had been dropped from them because of the complexity of the problems these children manifested. We drew on the knowledge and skills acquired in the previous five years during which we had developed and tested educational approaches with children from low-income families. Approximately 50 percent of the children who were enrolled in this special program were able to function in the mainstream of the public schools in subsequent years.

As a result of some 10 years of research and experience, then, we can say with confidence that the need for special education can be prevented among many children from low-income families if they are provided with appropriate programming during the pre-school years. In addition, our data reveal that a large majority of handicapped children can function at a higher level when they are provided with the pre-school program we have developed. Obviously, this does not mean that all handicapped children will function normally or will require no additional special services. It does mean, however, that many will not need special education in subsequent years and that those who do will likely need a lesser amount of special services. While it is difficult to make an exact dollar evaluation, it is obvious that a reduction of costs is

inevitable. Certainly no monetary estimate could begin to describe the impact such programs have on the lives of the handicapped and their families.

The early years are when children are most pliable and when special programming can have its greatest effect. The longer handicaps persist without intervention, the more entrenched they become. Bloom maintains in Stability and Change in Human Characteristics (1964) that 50 percent of intelligence is developed by the age of four. Hunt, in an earlier book, Intelligence and Experience (1961), emphasizes the effects of experience on intelligence and refutes the notion of fixed intelligence. The thinking of such experts coupled with research findings clearly endorse early education programs for the disadvantaged and handicapped.

What Constitutes an Exemplary Program for Young Handicapped Children?

The benefits of such programs as Head Start have been widely questioned, especially from the standpoint of subsequent school performance. Three programs developed by special educators, on the other hand, have revealed sustained gains over time: Bereiter and Englemann (1966); Karnes (1969); and Weikart (1970). A recent review of over 120 First Chance programs funded by the Bureau of the Education of the Handicapped throws additional light on what constitutes exemplary programming. The following appear to be among the components of exemplary programs:

1. *A well conceptualized and well defined screening and identification program.* Any program that meets the needs of children prone to become

special education subjects must have viable screening and identification methods. This program must assure that moderately, as well as low-incidence handicapped children, be identified.

A number of promising procedures are being developed and tested in various parts of the country. Most of these are in the developmental stages and are as yet unpublished. Many of these have been developed in First Chance programs.

A word of warning is, however, in order: programs must be developed prior to or concurrent with the identification of subjects. It is counter-productive to identify handicapped children and have no program in which to place them. Such procedures can only leave parents frustrated and confused.

2. *Well trained teachers.* The key to a good program is well trained head teachers. Even though a special educator may perform well at the elementary or secondary level, one cannot automatically conclude that such a teacher will be an acceptable pre-school teacher of the handicapped. On the contrary, without additional training such a teacher is a likely candidate for failure. Similarly, a teacher trained to work only with normal pre-school children will be unprepared to work with handicapped pre-schoolers. The breadth of training of a pre-school teacher of the handicapped must be great, for such a teacher is often diagnostician, curriculum developer, manager and team leader, parent worker, trainer of volunteers and para-professionals, and public relations expert.

3. *High adult-child ratio.* Since the young handicapped child has many special needs, he requires considerable attention from an adult. A program

can supply this necessary high adult-child ratio by involving parents, teenagers, and other volunteers. A series of studies involving non-certified teachers, parents, teenagers, and adult paraprofessionals, who worked to enhance the experiences of young children are reported by Karnes, Zehrbach and Teska (1970).

4. *Professional growth program.* Early education of the handicapped is in its infancy and must, therefore, rely on inservice training to keep personnel abreast of new developments in the field, and the daily schedule must allow time for a variety of professional growth activities.

5. *Teaming.* The concept of teaming is especially relevant for programs designed to meet the needs of young handicapped children and their families. The head teacher, paraprofessionals, speech and language specialist, psychologist, social worker, and physical therapist must evolve a close working relationship in order to plan and to delineate responsibilities so that the fullest development of the handicapped child is ensured.

6. *Diagnostic procedures to determine developmental strengths and weaknesses.* Diagnosis of the young handicapped child must include many critical aspects of development which have relevance to educational programming. No longer is the IQ or other test scores deemed conclusive in planning a viable program. Instead, careful observation of each child and a thorough knowledge of developmental milestones are required.

7. *Utilization and coordination of community resources.* The school is only one agency that can help the young handicapped child, and it often becomes the role of the school to coordinate community resources and to facilitate communication among agencies that work, or should be working, with handicapped children and their families.

8. *Individualization of programming and instruction.* Each young handicapped child must be studied carefully so that an individual program compatible with his stage of development can be designed. Such a program should help him to overcome weakness in his development as well as help him to make progress in his areas of strength. Such a program must take into account all facets of his development and guard against overemphasis in one area to the neglect of other important areas.

Since all children do not learn in the same way, it is important to determine the learning style most appropriate for a given child. Further, long range goals for each child must be established as well as specific objectives which will help him to attain those goals.

9. *Strong emphasis on language development.* Since language is the heart of learning, every program for young handicapped children must place a heavy emphasis on language development, especially since research indicates that a large portion of young handicapped children demonstrate developmental lags in language development.

10. *Use of a positive approach.* Attitudes of personnel working in a pre-school program are critical to its success. First of all, such persons must be committed to early education of the handicapped and to the approach that is being used. They must demonstrate positive attitudes toward the children as well as parents and toward their co-workers. There is reason to believe that the more positive attitudes are, the better the program. It cannot be inferred from this relationship that pre-school workers should adopt unrealistic expectations, but it does suggest that when personnel have positive attitudes, they are more apt to act positively and that positive actions are more likely to prove successful than negative ones.

11. *Appropriate instructional materials.* The goals and objectives of the program must determine the selection of instructional materials. The appropriateness of the instructional materials in helping the teacher to reach these goals and objectives is of paramount consideration. Teachers must assume primary responsibility in the selection of instructional materials.

12. *Integration with normal children.* There is no better time to mainstream children than during the pre-school years. Handicapped children learn much from working and playing with their normal peers, just as normal children gain a great deal from association with the handicapped. Since we do not have public education down to the age of three for normal children, we obviously cannot offer integrated pre-school experiences for the very young handicapped child. For the school-age group, it is legal and educationally sound to mix normal and handicapped children for the fuller development of both the handicapped and the normal individuals. Thus, there is the need for programs which include the normal as well as the handicapped. While this chapter is devoted to the handicapped, there is equally strong research evidence to support appropriate, formal education for early age normal children.

13. *Parent involvement.* Any exemplary program has a strong parent involvement component. Parents are as different as children; therefore, a flexible approach must be used to involve parents in the educational program of their young handicapped children. Attending large or small group meetings or individual conferences, teaching the handicapped child in the classroom or at home, making instructional materials, serving as aids to ancillary personnel, assisting in producing a newsletter to parents, working in the

parents' library, working with other parents of handicapped children, and interpreting the program to community groups are some of the many ways of involving parents.

Parents should have a voice in determining program goals and objectives for their handicapped child as well as deciding how they will be involved in the program. More detailed accounts of how parents can participate are found in two publications by Karnes and Zehrbach (1972a, 1972b).

14. *Ongoing evaluation.* Any program of excellence has a built-in system of evaluation. Daily evaluation by the team regarding the effectiveness of the program for individuals as well as groups of children is invaluable. A systematic schedule of case conferences can be very useful in determining whether or not a child's program is appropriate and services are genuinely effective. Criterion reference tests built into the daily curriculum of the children provide immediate feedback to the teacher who must know whether or not the child is learning what the teacher purports to be teaching him. Parents and volunteers can often be trained to collect data which will help the staff to evaluate the effectiveness of the program.

15. *Follow-up procedures.* Follow-up of children who have left the pre-school program is important. The kind of information gathered should be helpful in improving the pre-school program and in determining what additional services the handicapped child needs to sustain the gains he made during the pre-school years and to continue maximum development in subsequent years.

16. *Community support.* It is important to a program to know that it enjoys community support, but the staff of a pre-school program for the

handicapped must assume a major role in obtaining this support. The best way to win support is to have a good program, but every opportunity that affords itself should be used to interpret the program to the public. In addition, staff can reach out and develop opportunities to make such interpretations--newspapers, TV, radio, speeches, brochures, agencies, doctors' offices.

How Can Universities Help Public Schools to Provide Improved Programming for Young Handicapped Children?

There are three important ways in which universities can help public schools provide improved programming for young handicapped children. The first is through exemplary programs of preservice training. It is imperative that such training programs provide the prospective special teacher with opportunities to acquire the skills, attitudes, and knowledge essential to working effectively with handicapped children and their families. Completing the four courses required by the State for certification may enable a school system to obtain reimbursement, but meeting such requirements cannot assure that a teacher is professionally qualified to teach young handicapped chil- 11
dren. Rather, the heart of the training program must be a strong practicum which involves working with handicapped and normal children and with families of the handicapped children. Course work is essential, but it must be closely integrated with practicum experiences.

The second major contribution a university can make in promoting improved programming for handicapped children is through research and development activities. University faculty must be in tune with the needs of the field, and research must address itself to those unanswered questions posed

by practictioners. Research can generate the new knowledge that will enable the field to move ahead, but only when researchers and practitioners have open lines of communication.

The third contribution a university can make to this specialized field is in continuing education. Early education for the handicapped is a pioneer field in special education and knowledge is being generated at such a rate that only through continuing education can personnel in this field, even though their training is recent, operate effectively. Through extensive courses, workshops, programmed materials based on expressed needs, practitioners can keep current in their professional training. In the years to come, closer ongoing working relationships must be developed between local school systems, regional educational service centers, the Illinois Office of Education, and institutions of higher learning to ensure higher quality of educational programs.

Summary

There is sufficient evidence from research and from the opinions of educational experts that the early years are critical in the prevention and reduction of handicapping conditions. In these early formative years children are more amenable to change. If the handicapping conditions persist without intervention and children experience a preponderance of failure, their school attitudes and learning habits are apt to be negatively affected and the likelihood of the development of the full potential of an individual lessened.

School systems must give high priority to early education for the handicapped for two reasons. First, and most important of course, is to prevent

certain handicapping conditions from developing and to minimize the effects of existing handicapping conditions. Second, by reducing the number of children who may need special education in subsequent years, costs to the school and the taxpayer are reduced.

Certain characteristics or components are essential for a program to be viewed as exemplary. These are: (1) a well conceptualized and clearly defined screening and identification program, (2) well trained teachers, (3) high adult-child ratio, (4) professional growth program, (5) teaming, (6) diagnosis designed to determine developmental strengths and weaknesses, (7) utilization of community resources, (8) individualization of programming and instruction, (9) strong emphasis on language, (10) use of positive approach, (11) appropriate instructional materials, (12) integration with normal children, (13) parent involvement, (14) ongoing evaluation, (15) follow-up procedures, and (16) community support.

A few states have extended the age of intervention for handicapped children downward to birth. This appears to be a valid action, if one accepts the current evidence of the potential educational and human advantages to be gained. There is sufficient evidence, based on sound and logical thinking, to conclude that it would be wise for Illinois in the near future to extend its educational programming for handicapped children downward to birth.

Universities can be of assistance to local school systems, regional educational service centers, and the Illinois Office of Education in three major ways: (1) providing preservice education, (2) engaging in research and development activities to meet the needs of the field, and (3) offering continuing education based on need assessments.

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CHAPTER V

BILINGUALISM AND SPECIAL EDUCATION

Jacquetta Hill-Burnett

All too frequently young children from non-English speaking cultures have severe difficulties learning and performing in the American culture. The problems of a normal child in a single-culture environment are enough. Children with a dual existence, referred to as the bilingual or bicultural, may have traumatic experiences, especially at an early age, because of the way their differences are viewed and judged, and because of the absence of professionals who can transform their differences into training resources.

Many so-called normal children by definition in either culture, have linguistic, cultural difficulties which often are improperly diagnosed as "mental retardation," "learning disabilities," and even "emotional disorders." There are widespread accounts of cases of non-English speaking children who are somewhat bilingual (i.e., in more technical terminology non-English-dominant) being placed in classes with mentally handicapped, even in EMH levels of special education. These "errors" of placement are claimed to have done more damage than good, a believable claim when one considers EMH classes are no better equipped to "treat" lack of competence in language than are regular classrooms. But the strongest basis for negative regard of having bilingualism associated with special education is perhaps symbolic.

Thus, the educator must not base the diagnosis of the bilingual child on the premise that a lack of English language competency is a learning

disability. Indeed, the bilingual-bicultural child might better be regarded, in some respects, like intellectually gifted children who have special assets that the standard range of school experiences neither utilize nor develop to a high standard of performance. The deficiencies of most children from non-English language background are a function of the absence of personnel in the schools who can tap the full range of abilities by giving instructional content in their native language concurrent with instruction in English.

The "deficiency" of competently trained personnel in the diagnostic process has contributed to grievous errors in needs assessment of children and to the growing level of negative attitudes toward special education in non-English speaking populations. In interviews with parents in Chicago, special education classes were regarded with fear and hostility as if assignment to special education classes consigned their children to a life-long mental dungeon. This is dramatic language, but it is an accurate reflection of the depth of feeling with which they expressed themselves. In order to distinguish between the usual range of learning disabilities that are physically or mentally based and the expression of learning difficulty coming from lack of competency in English, the primary language used in school, or from cultural differences, a person or a diagnostic team must have expertise in at least three disciplinary and knowledge areas.

The first of these is command of developmental phases or stages in the learning abilities of any human being, and in variations as they are affected by the society or the culture. Since not all development is a function of human maturation, but is heavily subject to cultural definition, judgments about maturation, particularly for children coming from different cultural

(and linguistic) backgrounds, should be made by a diagnostician well informed on cultural variations in developmental tasks. This includes knowledge of the characteristics of the processes of first language and second language acquisition.

Second, the well prepared diagnostician should know linguistic concepts, particularly sociolinguistic concepts, increasingly found to be relevant to developing tests, designing testing instruments and situations, and administering tests. Research being done in this area indicates that language performance is extremely sensitive to the social situation (school, home, etc.) in which the child performs. In addition to linguistic knowledge, diagnosticians must be competent in the mother language of the child, as well as in English.

Finally, of course, the individual must have expert knowledge of the range of learning disabilities and exceptional abilities if one of the objectives of the diagnosis is to determine whether the performance of the child warrants classification into a learning disability category or alternately in that range of varying degrees of linguistics competency in a second language, or dialect.

Thus, we are suggesting that there are three key areas in which the school system must focus expertise in order to make the fine and refined judgmental decisions regarding what it is that is acting as a deterrant to the progress of the bilingual child in the standard school situation. The school system must provide not only the personnel for proper diagnosis, but also the programs and wherewithal to afford learning experiences that are appropriate to these children.

APPENDIX

This section presents Table 14 which explains the procedure used in this study for cost analysis of instructional programs. Tables 15-36 inclusive present detailed information on programs for each of the 23 districts that cooperated in this study.

Table 14

Method of Computing
Program Costs
(With Illustration)

1.	District	Champaign Community Unit School District 4
2.	Title of Program	Educable Mentally Handicapped (K-9)
3.	Number of Pupils in Program (ADM) (Use 1/2 ADM for half-day Kindergartens)	195
4.	Number of FTE Pupils in Program (Item 3 times average fractional time spent in Program. In high school use fraction of 5-hour day. In Vocational Programs use average course credit fraction of a five Carnegie credit pupil load.)	117
5.	Number of FTE Pupils in Regular Program (Item 3 minus Item 4). Use number of pupils as a basis to determine the numbers of regular teachers in the program. Omit this item for Vocational Programs.	73

		Number (FTE)	Total Salaries (Based on District Average)
6.	Special Teachers in Program	15.0	$183,825
7.	Regular Teachers in Program (Assigned to number of pupils (FTE) in Item 5 at average pupil-teacher ratio of the regular program in the district.) Omit this item for Vocational Programs.	4.5	55,148
8.	Total Teachers in the Program	19.5	238,973
9.	Total Academic Supportive Staff:	5.78	66,242
	(1) Total Administrative and Supervisory:	1.48	30,441
	a. Assigned	0.40	8,228
	b. Prorated on per teacher basis from school and district central offices	1.08	22,213
	(2) Counselors, psychologists, social workers, librarians, therapists, teacher aides, and others (separated by groups as illustrated for administrative and supervisory.)	4.30	35,801

Table 14 cont'

10.	Auxiliary Services (Clerical, stenographic, custodial, instructional supplies, other operational expenses) Total	$ 99,318
	(1) Assigned	0
	(2) Unassigned: prorated on per teacher basis.	99,318
11.	Total Expenditures (Sum of Item 8 plus Item 9 plus Item 10.)	404,533
12.	Cost per Pupil (ADM) in Program (Divide Item 11 by Item 3, for all programs except Vocational Education)	2,074
13.	a. Cost per Pupil in Regular Program, grades 1-8.	981
	b. Cost per Pupil in Regular Program, grades 9-12.	
14.	Program Cost Differential (Divide Item 12 by Item 13 a and b as applicable.)	2.11
15.	Vocational Education, Cost per Pupil FTE. (Divide Item 11 by Item 4.)	
16.	Program Cost Differential per Vocational FTE. (Divide Item 15 by Item 13b.)	
17.	Program Cost Differential per Pupil (ADM) Enrolled in Vocational Program.	

Add: (1) Average fractional course credit FTE value of 5-unit load times Item 15, plus

(2) Average fractional time in Regular Program times per pupil cost in Regular Program in grades 9-12 (Item 13b).

Table 15

Cost Analysis of Programs

Alsip, Hazelgreen and Oak Lawn (El.)

1973-1974

Program	No. of Pupils (ADM)	Exp. per Pupil	Cost Differential*	No. Pupils per Teacher
I. Total No. of Pupils (ADM)	2,406			
II. Basic (General)	1,960	$ 803	1.00	24.1
III. Pre-Kindergarten (FTE)	0			
IV. Kindergarten (FTE)	106	907	1.13	21.2
V. Special Education	340			
1. EMH	18	2,134	2.66	9.0
2. TMH	11	4,401	5.48	5.5
3. Ed. Hand.	12	1,617	2.01	12.0
4. Learning Disab.	121	1,035	1.29	20.2
5. Speech Corr.	178	1,036	1.29	18.5

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 16

Cost Analysis of Programs

Blue Island

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H. S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	3,551	0								
II. Basic (General)	2,884	0	$ 913		1.00			24.8		
III. Pre-Kindergarten (FTE)	0									
IV. Kindergarten (FTE)	213		782		.86			30.4		
V. Special Education	454									
1. Emot. Dist.	30		2,224		2.44			12.0		
2. EMH	41		2,380		2.61			9.8		
3. Learning Disab.	40		2,252		2.47			11.1		
4. Speech Corr.	240		1,158		1.27			18.9		
5. Bilingual	103		1,730		1.89			14.7		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 17
Cost Analysis of Programs

Bloomington
1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	4,147	1,996								
II. Basic (General)	2,796	1,616	$ 934	$1,011	1.00	1.08		20.0	17.4	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	250		858		0.92			21.7		
V. Special Education	1,101	175								
1. Pre-school	5		3,939		4.22			5.0		
2. Residential		5		3,733		4.00			5.0	
3. Emot. Dist.	4		4,924		5.27			4.0		
4. EMH	78	60	1,601	1,336	1.71	1.43	1.59	12.2	13.6	12.8
5. TMH	40	10	2,567	1,866	2.75	2.00	2.60	8.9	10.0	9.1
6. Ed. Hand.	85	10	1,565	2,069	1.68	2.21	1.74	12.5	9.1	12.0
7. Learning Disab.	105	90	2,216	1,227	2.37	1.31	1.88	8.7	14.6	10.7
8. Speech	400		1,156		1.24			16.3		
9. Comp. (Title I)	366		1,419		1.52			13.4		
10. Bilingual	18		1,453		1.56			13.0		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 17 cont'

Cost Analysis of Programs

Bloomington

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	568	205	.36	$1,807	$1,298	1.79	1.28	12.1	33	17.0
A. Agriculture (Occ)	17	6.8	.40	1,606	1,249	1.59	1.24	13.6	34	0.5
B. Home Ec. (Gen)	10	2.0	.20	2,120	1,233	2.10	1.22	10.0	50	0.2
C. Trade & Ind. (Occ)	155	77.5	.50	1,858	1,435	1.84	1.42	11.7	23	6.6
D. Bus. & Dist. (Occ)	97	48.5	.50	1,849	1,430	1.83	1.41	11.8	24	4.1
E. Health Occ.	32	19.2	.60	1,816	1,494	1.80	1.48	12.0	20	1.6
F. Coop-Voc.	257	51.4	.20	1,701	1,149	1.68	1.14	12.9	64	4.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
**Based on unit value of 1.00 for high school basic ($1011).

Table 18

Cost Analysis of Programs

Champaign

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	7,885	2,390								
II. Basic (General)	5,760	1,616	$ 981	$1,224	1.00	1.25		21.0	17.9	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	435		859		0.88			24.1		
V. Special Education	1,690	289								
1. Pre-School	12		1,728		1.76			12.0		
2. Mult. Hand.	8		3,154		3.22			8.0		
3. Phy. Hand.	59	39.0	2,411	1,540	2.46	1.57	2.10	8.9	14.4	10.5
4. Deaf	54	3.0	2,973	2,125	3.03	2.17	2.98	7.0	4.3	6.8
5. Blind	8	3.0	4,404	4,406	4.49	4.49	4.49	4.7	5.0	4.8
6. Partial Seeing	7		3,160		3.22			6.5		
7. EMH	195	47.0	2,075	2,350	2.11	2.40	2.16	10.0	9.2	9.8
8. TMH	38	14	2,210	1,562	2.25	1.59	2.07	9.4	14.0	10.3
9. Ed. Hand.	226	183.0	1,772	1,269	1.81	1.29	1.58	11.7	17.3	13.7
10. Learning Disab.	176		2,498		2.55			8.3		
11. Speech Corr.	483		1,585		1.62			13.1		
12. Comp. (Title I)	424		1,932		1.97			10.7		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-9.

Table 18 Cont'

Cost Analysis of Programs

Champaign

1973-1974

	Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI.	Vocational Ed. (High School)	2,534	485	.19	$1,855	$1,344	1.52	1.10	11.8	62	41.1
	A. Agriculture	145	18.2	.13	1,685	1,284	1.38	1.05	13.0	104	1.4
	B. Home Ec.	388	63.3	.16	1,590	1,283	1.30	1.05	13.8	84	4.6
	C. Trade & Ind.	561	108.2	.19	2,103	1,391	1.72	1.14	10.4	54	10.4
	D. Bus. & Dist.	1,053	152.3	.14	2,040	1,338	1.67	1.09	10.7	74	14.2
	E. Health Occ.	15	3.0	.20	734	1,126	0.60	0.92	30.0	150	0.1
	F. Coop-Voc.	262	83.6	.32	1,936	1,452	1.58	1.19	11.3	35	7.4
	G. Prevocational	110	56.2	.51	1,167	1,195	0.95	0.98	18.7	37	3.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

**Based on unit value of 1.00 for high school basic (41004)

Table 19

Cost Analysis of Programs

Chicago

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	381,484	130,386								
II. Basic (General)	256,760	86,813	$1,094	$1,319	1.00	1.21		28.8	25.3	
III. Pre-kindergarten (FTE)	3,292		1,953		1.79			16.1		
IV. Kindergarten (FTE)	16,272				1.30			22.2		
V. Special Education	105,160	15,872	1,418							
1. Pre-school	212		3,752		3.43			9.2		
2. Phy. Hand.	1,374	628	6,044	6,224	5.52	5.69	5.57	5.7	5.7	5.7
3. Deaf	596	147	5,582	5,749	5.10	5.26	5.13	6.1	6.1	6.1
4. Blind	54		13,554		12.39			2.6		
5. Partial Seeing	326	106	5,576	5,648	5.10	5.16	5.12	8.2	6.2	7.5
6. Residential	159	779	3,765	4,015	3.44	3.67	3.63	8.4	8.3	8.3
7. Soc. Adj. Sch.	805	511	3,718	6,315	3.40	5.77	4.32	8.5	5.3	7.3
8. Brain Injured	293		5,534		5.06			6.2		
9. EMH	10,903	3,239	2,603	2,674	2.38	2.44	2.39	13.2	13.2	13.2
10. TMH	1,294	203	3,261	3,296	2.98	3.01	2.98	10.5	10.7	10.6
11. Ed. Hand. (Soc. Adj. Classes, ERA)	2,069	524	3,578	2,794	3.27	2.55	3.12	8.8	11.9	9.4
12. Learning Disab.	2,060	99	3,726	3,913	3.41	3.58	3.42	9.2	9.0	9.2
13. Family Mal. Adj.		594		2,755		2.52			12.6	
14. Speech Corr.	7,747	1,937	1,546	1,836	1.41	1.68	1.46	20.9	19.2	20.5
15. Comp. (Title I)	54,145	1,103	1,644	1,900	1.50	1.74	1.50	19.2	17.8	19.1
16. Bilingual	10,536	1,464	1,654	1,409	1.51	1.29	1.48	19.1	23.6	19.6
Gifted	12,587	4,538	1,655	1,816	1.51	1.66	1.55	19.3	19.4	19.3

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 19 Cont'

Cost Analysis of Programs

Chicago

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	130,027	27,701	.21	$1,550	$1,368	1.18	1.04	21.5	101	1,290
A. Home Ec.	21,537	4,236	.20	1,665	1,388	1.26	1.05	20.0	102	212
B. Trade & Ind.	45,653	10,736	.24	1,680	1,406	1.27	1.07	19.8	84	542
C. Bus. & Dist.	62,837	12,729	.20	1,401	1,335	1.06	1.01	23.7	117	536

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
**Based on unit value of 1.00 for high school basic ($1319).

Table 20

Cost Analysis of Programs

Decatur

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	12,512	6,138								
II. Basic (General)	8,115	5,251	$ 813	$ 922	1.00	1.13		25.7	21.8	
III. Pre-Kindergarten (FTE)	0									
IV. Kindergarten (FTE)	697		940		1.16			21.4		
V. Special Education	3,700	246								
1. Pre-School	7		3,214		3.95			6.8		
2. Mult. Hand.	24	7	3,132	3,186	3.85	3.92	3.87	8.0	8.0	8.0
3. Phy. Hand.	6	1	4,536	3,660	5.58	4.50	5.43	6.0	7.7	6.4
4. Hear. Imp.	22	7	4,967	3,312	6.11	4.07	5.63	4.4	6.8	4.8
5. Partial Seeing	8	2	5,844	2,228	7.19	2.74	6.30	4.4	10.0	5.0
6. Residential		4		4,960		6.10			4.3	
7. Emot. Dist.	25	7	2,926	3,584	3.60	4.41	3.78	8.3	6.0	7.6
8. EMH	230	106	1,599	1,675	1.97	2.06	2.00	13.5	13.3	13.4
9. TMH	55	35	3,500	1,460	4.31	1.80	3.33	7.9	17.5	10.0
10. Ed. Hand.	84	77	2,661	1,162	3.27	1.43	2.39	9.3	19.3	12.4
11. Learning Disab.	180		1,775		2.18			11.3		
12. Speech Corr.	1,384		987		1.21			19.4		
13. Comp. (Title I)	1,675		1,226		1.51			16.4		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 20 Cont'

Cost Analysis of Programs

Decatur

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,282	641	.5	$1,225	$1,074	1.33	1.16	15.3	31	42
A. Trade & Ind.	712	356	.5	1,212	1,067	1.31	1.16	15.5	31	23
B. Bus. & Dist.	570	285	.5	1,241	1,082	1.35	1.17	15.0	30	19

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

Table 21

Cost Analysis of Programs

Downers Grove (El.)

1973-1974

Program	No. of Pupils (ADM)	Exp. per Pupil	Cost Differential*	No. Pupils per Teacher
I. Total No. of Pupils (ADM)	6,183			
II. Basic (General)	5,786	$ 840	1.00	21.5
III. Pre-Kindergarten (FTE)	0			
IV. Kindergarten (FTE)	310	905	1.08	20.0
V. Special Education	87			
1. Pre-School	13	3,182	3.79	6.5
2. EMH	38	1,564	1.86	12.7
3. Ed. Hand.	14	3,080	3.67	7.0
4. Learning Disab.	22	1,960	2.33	11.0

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 22

Cost Analysis of Programs

Edwardsville

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	3,378	1,990								
II. Basic (General)	2,499	1,482	$ 708	$ 894	1.00	1.26		26.1	22.25	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	117		1,040		1.47			18.00		
V. Special Education	762	71								
1. Pre-School	10		4,527		6.39			5.00		
2. Mult. Hand.	8		3,494		4.93			8.00		
3. Residential		9		2,526		3.57			9.00	
4. EMH	20	25	3,378	1,642	4.77	2.32	3.41	6.47	12.50	8.84
5. Ed. Hand.	10	4	2,731	5,064	3.86	7.15	4.80	8.00	4.0	6.3
6. Learning Disab.	100	22	1,242	1,168	1.75	1.65	1.73	17.76	16.9	17.6
7. Speech Corr.	237	11	1,035	912	1.46	1.29	1.45	18.40	22.0	18.5
8. Comp. (Title I)	377		952		1.34			19.89		

*All cost differentials are based on unit values of 1.00 for Basic (General) Programs in grades 1-8.

Table 22 Cont'

Cost Analysis of Programs

Edwardsville

1973-1974

	Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI.	Vocational Ed. (High School)	1,835	437	.24	$ 848	$ 883	0.95	0.99	23.5	98.7	18.6
	A. Agriculture	49	11.8	.24	1,644	1,074	1.84	1.20	11.8	49.0	1.0
	B. Home Ec.	198	47.6	.24	798	871	0.89	0.97	25.1	104.2	1.9
	C. Trade & Ind.	547	129.4	.24	1,182	963	1.32	1.08	16.6	70.1	7.8
	D. Bus. & Dist.	1,041	248.2	.24	646	834	0.72	0.93	31.4	131.8	7.9

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

Table 23

Cost Analysis of Programs

Galesburg

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	5,928	1,981								
II. Basic (General)	4,387	1,415	$ 783	$ 863	1.00	1.10		20.1	18.8	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	278		866		1.11			17.9		
V. Special Education	1,263	40								
1. Pre-School	8		2,583		3.30			8.0		
2. Phy. Hand.	8		2,762		3.53			6.7		
3. Hear. Imp.	6		3,140		4.01			5.3		
4. Residential	6		2,749		3.51			6.0		
5. Emot. Dist.	30		1,701		2.17			9.3		
6. EMH	180	30	1,369	1,789	1.75	2.28	1.83	11.9	11.5	11.9
7. TMH	40	10	1,527	2,059	1.95	2.63	2.08	13.3	10.0	12.5
8. Learning Disab.	90		1,515		1.93			10.3		
9. Speech Corr.	400		943		1.20			16.6		
10. Comp. (Title I)	495		936		1.20			16.7		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-9.

Table 23 Cont'

Cost Analysis of Programs

Galesburg

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential ** per FTE	Cost Differential ** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,450	538	.37	$ 787	$ 784	0.91	0.91	20.7	55.8	26.0
A. Agriculture	87	22	.25	746	834	0.86	0.87	22.0	87.0	1.0
B. Home Ec.	239	73	.30	993	902	1.15	1.05	16.2	53.1	4.5
C. Trade & Ind.	599	292	.49	675	771	0.78	0.89	24.3	49.9	12.0
D. Bus. & Dist.	455	123	.27	857	861	0.99	1.00	18.9	70	6.5
E. Health Occ.	70	28	.40	1,142	975	1.32	1.13	14.0	35.0	2.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
** Based on unit value of 1.00 for high school basic ($863).

Table 24

Cost Analysis of Programs

Harrisburg

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	1,819	838								
II. Basic (General)	1,530	287	$ 711	$ 743	1.00	1.05		22.5	20.8	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	87		735		1.03			24.7		
V. Special Education	192	67								
1. Pre-School	4.0		1,998		2.81			8.0		
2. EMH	39.0	17.0	1,229	1,665	1.83	2.34	1.98	13.0	12.1	12.7
3. Ed. Hand.	22		1,452		2.04			11.0		
4. Comp. (Title I)	127	50.0	1,573	1,051	2.21	1.48	2.00	10.2	14.7	11.1

*All cost differentials are based on unit values of 1.00 for Basic (General) Programs in grades 1-8.

Table 24 Cont'

Cost Analysis of Programs

Harrisburg

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	484	110	.23	$1,588	$ 929	2.14	1.25	9.7	42.8	11.3
A. Agriculture	101	20	.20	850	764	1.14	1.03	18.2	91.8	1.1
B. Home Ec.	170	34	.20	909	776	1.22	1.04	17.0	85.0	2.0
C. Trade & Ind.	107	32	.30	1,546	984	2.08	1.32	10.0	33.4	3.2
D. Bus. & Dist.	106	24	.23	3,220	1,313	4.33	1.77	4.8	21.2	5.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic (General) Programs.

Table 25

Cost Analysis of Programs

Jacksonville

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	3,840	1,106								
II. Basic (General)	2,673	806	$ 806	$ 948	1.00	1.18		22.2	18.6	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	193		732		.91			24.1		
V. Special Education	974	69								
1. Mult. Hand.	17		3,569		4.43			7.4		
2. Emot. Dist.	8		2,696		3.35			7.6		
3. EMH	74	27	1,760	1,737	2.18	2.16	2.18	11.1	12.1	11.5
4. TMH	28	13	2,297	1,638	2.85	2.03	2.59	9.3	13.0	10.3
5. Ed. Hand.	94	29	1,616	1,597	2.01	1.98	2.00	11.5	14.0	12.0
6. Learning Disab.	55		2,895		3.95			6.5		
7. Speech Corr.	190		1,059		1.31			16.9		
8. Comp. (Title I)	168		1,557		1.93			11.7		
Gifted	340		929		1.15			19.3		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-9.

Table 25 Cont'

Cost Analysis of Programs

Jacksonville

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,070	231	.22	$ 920	$ 942	0.97	0.99	19.2	89	12.0
A. Agriculture	96	19.3	.20	920	942	0.97	0.99	19.3	96	1.0
B. Home Ec.	221	34.9	.16	1,008	958	1.06	1.01	17.5	111	2.0
C. Trade & Ind.	355	71.4	.20	965	951	1.02	1.00	18.3	91	3.9
D. Bus. & Dist.	319	70.3	.22	833	923	0.88	0.97	21.3	97	3.3
E. Health Occ.	10	2.1	.21	1,621	1,089	1.71	1.15	10.5	50	.2
F. Coop-Voc.	55	27.6	.51	655	799	0.69	0.84	27.6	55	1.0
G. Work Exp. Coop. Ed.	14	5.1	.36	2,018	1,333	2.13	1.41	8.5	23	.6

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

Table 26

Cost Analysis of Programs

Marion

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	3,532	1,809								
II. Basic (General)	2,515	1,132	$ 851	$1,107	1.00	1.30		22.3	18.4	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	154		909		1.07			21.1		
V. Special Education	863	200								
1. Early Childhood	7		3,904		4.59			7.0		
2. Phy. Hand.	2		3,091		3.63			25.0		
3. Hear. Imp.	46	1	2,952	3,172	3.47	3.73	3.48	6.3	7.7	6.3
4. Emot. Dist.	9		2,913		3.42			9.0		
5. EMH	93	110	1,918	1,565	2.25	1.84	2.03	11.6	15.9	13.6
6. TMH	21	8	2,461	3,494	2.89	4.11	3.23	10.5	8.0	9.7
7. Ed. Hand.	58	76	1,915	2,228	2.25	2.62	2.45	11.6	11.3	11.5
8. Learning Disab.	67		1,941		2.28			13.4		
9. Speech Corr.	426	5.	928	1,479	1.09	1.74	1.10	18.5	13.8	18.4
10. Comp. (Title I)	134		1,400		1.65			10.7		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 26 cont'

Cost Analysis of Programs

Marion

1973-74

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,784	477	.27	$1,079	$1,099	0.97	0.99	19.3	72	24.8
A. Agriculture	132	38.2	.29	986	1,072	0.89	0.97	21.2	73	1.8
1. General	73	14.6	.20	860	1,058	0.78	0.96	24.3	122	.6
2. Occ.	59	23.6	.40	1,064	1,090	0.96	0.98	19.7	49	1.2
B. Home Ec.	281	68.2	.24	1,206	1,131	1.09	1.02	17.1	70	4.0
1. General	221	44.2	.20	1,293	1,144	1.17	1.03	15.8	79	2.8
2. Occ.	60	24.0	.40	1,046	1,083	0.94	0.98	20.0	50	1.2
C. Trade & Ind.	581	162.4	.28	1,195	1,132	1.08	1.02	17.3	62	9.4
1. General	416	83.2	.20	1,172	1,120	1.06	1.01	17.3	87	4.8
2. Occ.	165	79.2	.48	1,219	1,161	1.10	1.05	17.2	36	4.6
D. Bus. & Dist.	697	138.4	.20	1,026	1,091	0.93	0.99	19.8	100	7.0
1. General	652	120.4	.18	1,017	1,091	0.92	0.99	20.1	109	6.0
2. Occ.	45	18.0	.40	1,089	1,100	0.98	0.99	18.0	45	1.0
E. Health Occ.	21	12.6	.60	1,556	1,376	1.41	1.24	12.6	21	1.0
F. Coop-Voc.	72	57.6	.80	689	773	0.62	0.70	36.0	45	1.6

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
**Based on unit value of 1.00 for high school basic ($1107).

Table 27

Cost Analysis of Programs

Mattoon

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	3,494	1,706								
II. Basic (General)	2,494	1,234	$ 824	$ 947	1.00	1.15		21.4	19.2	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	171		790		0.96			22.8		
V. Special Education	829	49								
1. Pre-School	6		4,384		5.32			6.0		
2. EMH	52	29	1,032	1,278	1.25	1.55	1.36	17.3	14.5	16.2
3. TMH	56	20	1,544	2,152	1.87	2.61	2.06	14.0	10.0	12.7
4. Ed. Hand.	153		1,187		1.44			19.6		
5. Learning Disab.	20		1,781		2.16			10.0		
6. Speech	320		1,110		1.35			15.8		
7. Comp. (Title I)	222		1,370		1.66			13.6		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Program in grades 1-8.

Table 27 cont'

Cost Analysis of Programs

Mattoon

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,922	423	.22	$1,234	$1,010	1.30	1.07	14.3	65	29.6
A. Agriculture	120	22	.18	836	927	0.88	0.98	22.0	120	1.0
B. Home Ec.	271	66	.24	1,536	1,088	1.62	1.15	12.0	49	5.5
C. Trade & Ind.	602	161	.27	1,606	1,125	1.70	1.19	11.5	43	14.0
D. Bus. & Dist.	920	193	.21	861	929	0.91	0.98	21.4	102	9.0
E. Health Occ.	9	.9	.10	2,004	1,053	2.12	1.11	9.0	90	0.1

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

Table 28

Cost Analysis of Programs

Moline

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	8,608	2,459								
II. Basic (General)	6,884	1,974	$ 888	$1,141	1.00	1.28		25.3	21.0	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	427		858		0.97			25.9		
V. Special Education	1,297	17								
1. Pre-School	14		1,471		1.66			7.0		
2. Hear. Imp.	42		3,920		4.41			6.0		
3. EMH	91	17	1,711	1,528	1.93	1.72	1.90	15.2	17.0	15.4
4. Learning Disab.	145		1,707		1.92			11.1		
5. Speech Corr.	380		1,240		1.40			18.2		
6. Comp. (Title I)	555		1,373		1.55			16.7		
7. Bilingual	70		1,997		2.25			12.9		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-9.

Table 28 cont'

Cost Analysis of Programs

Moline

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	2,192	467.8	.21	$1,758	$1,271	1.54	1.11	14.2	66	33.0
A. Agriculture	12	4.2	.35	5,261	2,583	4.61	2.26	4.2	12	1.0
B. Home Ec.	427	87.6	.21	1,484	1,213	1.30	1.06	16.2	79	5.4
1. General	343	68.6	.2	1,392	1,191	1.22	1.04	17.2	86	4.0
2. Occ.	84	19	.23	1,814	1,296	1.59	1.14	13.6	60	1.4
C. Trade & Ind.	970	204.5	.21	1,809	1,281	1.59	1.12	15.3	72	13.4
1. General	835	149.5	.18	1,887	1,275	1.65	1.12	14.4	80	10.4
2. Occ.	135	55	.41	1,597	1,328	1.40	1.16	18.3	45	3.0
D. Bus. & Dist.	769	166	.22	1,727	1,270	1.51	1.11	13.2	61	12.6
1. General	709	142	.20	1,690	1,251	1.48	1.10	13.4	67	10.6
2. Occ.	60	24	.40	1,946	1,463	1.71	1.28	12.0	30	2.0
E. Health Occ.	14	5.5	.39	2,463	1,657	2.16	1.45	9.2	23	0.6

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

**Based on unit value of 1.00 for high school basic ($1,141)

Table 29

Cost Analysis of Programs

Mt. Carmel

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	1,647	844								
II. Basic (General)	1,183	652	$ 697	$1,060	1.00	1.52		24.1	16.8	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	96		939		1.35			16.0		
V. Special Education	368	18								
1. Mult. Hand.	5		3,209		4.60			5.0		5.0
2. EMH	19	18	1,755	1,060	2.52	1.52	2.03	9.5	18.0	12.3
3. TMH	14		1,671		2.40			14.0		
4. Ed. Hand.	34		1,954		2.80			8.5		
5. Learning Disab.	51		1,532		2.20			8.3		
6. Speech Corr.	147		903		1.30			16.9		
7. Comp. (Title I)	98		1,160		1.66			13.1		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 29 cont'

Cost Analysis of Programs

Mt. Carmel

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	784	174	.22	$1,228	$1,097	1.16	1.03	14.8	66	11.9
A. Agriculture	68	13	.19	1,527	1,149	1.44	1.08	11.7	62	1.1
B. Home Ec.	116	25	.22	1,433	1,142	1.35	1.08	12.5	58	2.0
C. Trade & Ind.	271	72	.27	1,379	1,146	1.30	1.08	13.0	48	5.6
D. Bus. & Dist.	309	61	.20	907	1,029	0.86	0.97	20.3	103	3.0
E. Health Occ.	20	3	.15	1,148	1,073	1.08	1.01	15.0	100	.2

*ADM = Average Daily Membership of pupils enrolled

Table 30

Cost Analysis of Programs

Mt. Vernon (El. and H.S.)

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	2,263	1,854								
II. Basic (General)	1,727	566	$ 617	$1,085	1.00	1.76		27.3	18.7	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	108		846		1.37			19.6		
V. Special Education	428	664								
1. Mult. Hand.	10		2,036		3.30			10.0		
2. EMH	51	52	1,356	1,307	2.20	2.12	2.16	12.8	15.3	13.9
3. TMH	12	22	1,385	1,288	2.24	2.09	2.14	12.0	18.2	14.4
4. Ed. Hand.	7		2,851		4.62			7.0		
5. Learning Disab.	30		1,752		2.84			10.0		
6. Speech	134	160	875	1,103	1.42	1.79	1.62	18.9	18.4	18.6
7. Comp. (Title I)	184	430	1,299	1,094	2.11	1.77	1.87	12.7	18.5	16.5

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 30 cont'

Cost Analysis of Programs

Mt. Vernon (El. and H.S.)

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	2,705	624	.23	$ 892	$1,041	0.82	0.96	23.1	100	27.0
A. Agriculture	170	44	.26	942	1,048	0.87	0.97	22.0	85	2.0
1. General	120	24	.20	863	1,041	0.80	0.96	24.0	120	1.0
2. Occ.	50	20	.40	1,036	1,065	0.95	0.98	20.0	50	1.0
B. Home Ec.	463	101	.22	862	1,036	0.79	0.95	24.1	110	4.2
1. General	420	84	.20	885	1,045	0.82	0.96	23.3	117	3.6
2. Occ.	43	17	.40	750	951	0.69	0.88	28.3	71	0.6
C. Trade & Ind.	1,173	272	.23	893	1,041	0.82	0.96	23.1	99	11.8
1. General	985	197	.20	687	1,005	0.63	0.93	30.8	154	6.4
2. Occ.	188	75	.40	1,433	1,224	1.32	1.13	13.9	35	5.4
D. Bus. & Dist.	863	192	.22	861	1,036	0.79	0.95	24.0	108	8.0
1. General	765	153	.20	877	1,043	0.81	0.96	23.5	118	6.5
2. Occ.	98	39	.40	799	971	0.74	0.89	26.0	65	1.5
E. Health Occ.	38	15	.40	1,334	1,185	1.23	1.09	15.0	38	1.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

** Based on unit value of 1.00 for high school basic (01000)

Table 31

Cost Analysis of Programs

Peoria

1973-1974 El. = K-8 -- H.S. = 9-12

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	15,847	6,811								
II. Basic (General) 1-8	13,666	6,287	$1,108	$ 883	1.00	0.80		21.3	28.4	
III. Kindergarten - Basic	903		1,034		0.93			21.8		
IV. Special Education	1,278	227								
1. Early Help - DLC	65		4,108		3.71			4.7		
2. Phy. Hand.(Orthopedic)	71	28	2,197	1,520	1.98	1.37	1.81	8.2	11.5	9.1
3. Deaf	37		3,421		3.09			4.6		
4. Hear. Imp.	26		2,815		2.54			5.3		
5. Partial Seeing	5	5	9,337	4,981	8.43	4.50	6.5	3.2	4.5	3.8
6. Home-Hospital	21	45	2,441	1,214	2.20	1.10	1.45	6.6	13.7	11.4
7. Emot. Dist.	42		3,833		3.46			8.4		
8. EMH	353	114	1,688	1,730	1.52	1.56	1.53	12.2	11.9	12.1
9. TMH	74		2,896		2.61			7.4		
10. Learning Disab.	102	35	2,574	1,501	2.32	1.35	2.07	9.7	11.7	10.21
11. Speech Corr.	155		2,161		1.95			11.9		
12. Comp. (Title I)	74		3,281		2.96			8.2		
Gifted	253		828		0.75			25.3		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8

Table 31 cont'

Cost Analysis of Programs

Peoria High School (9-12)

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
V. Vocational Ed. (High School)	1,484	297	.20	$4,603	$1,627	5.21	1.84	4.4	22.2	
A. Home Ec.	480	96	.20	4,391	1,584	4.97	1.79	4.6	23.1	20.8
B. Trade & Ind.	451	90	.20	5,389	1,784	6.10	2.02	3.9	19.4	23.2
C. Bus. & Dist.	553	111	.20	4,370	1,580	4.95	1.79	4.9	24.2	22.8

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
**Based on unit value of 1.00 for high school basic ($883).

Table 32

Cost Analysis of Programs

Quincy

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	5,965	2,932								
II. Basic (General)	4,704	2,637	$ 699	$1,055	1.00	1.51		23.1	21.0	
III. Pre-Kindergarten (FTE)	67	0	2,100		3.00			11.2		
IV. Kindergarten (FTE)	417		616		.88			26.1		
V. Special Education	777	144								
1. Pre-School	65		1,399		2.00			14.4		
2. Phy. Hand.	11	5	3,674	4,427	5.26	6.33	5.59	5.5	5.0	5.33
3. Deaf	21		3,849		5.51			5.3		
4. Partial Seeing	6		3,367		4.82			6.0		
5. EMH	235	128	2,149	1,383	3.07	1.98	2.69	9.4	16.0	11.0
6. TMH	27	11	2,245	2,012	3.21	2.88	3.11	9.0	11.0	9.5
7. Learning Disab.	112		1,804		2.58			11.2		
8. Comp. (Title I)	300		1,231		1.76			13.04		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 32 cont'

Cost Analysis of Programs

Quincy

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	755	151	.2	$2,693	$1,383	2.55	1.31	8.25	41	18.3
A. Agriculture	47	9.4	.2	3,768	1,598	3.57	1.51	5.88	29	1.60
B. Home Ec.	98	19.6	.2	2,340	1,312	2.22	1.24	9.80	49	2.0
C. Trade & Ind.	371	74.2	.2	3,162	1,476	3.00	1.40	7.00	35	10.60
D. Bus. & Dist.	203	40.6	.2	1,690	1,182	1.60	1.12	13.10	65	3.10
E. Health Occ.	36	7.2	.2	3,074	1,459	2.91	1.38	7.20	36	1.0

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
** Based on unit value of 1.00 for high school basic ($1055).

Table 33

Cost Analysis of Programs

Robinson

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	1,431	683								
II. Basic (General)	1,108	237	$ 894	$1,148	1.00	1.28		19.8	15.0	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	67		922		1.03			19.1		
V. Special Education	256	289								
1. Hear. Imp.	4		4,349		4.86			4.0		
2. EMH	13	37	2,675	1,325	2.99	1.48	1.87	6.5	12.9	10.3
3. Speech Corr.	72		1,243		1.39			14.1		
4. Comp. (Title I)	84	214	1,296	1,144	1.45	1.28	1.33	13.5	15.1	14.6
Gifted	83	38	894	1,148	1.00	1.28	1.09	21.7	15.0	19.4

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-8.

Table 33 cont'

Cost Analysis of Programs

Robinson

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	784	157	.20	$1,056	$1,130	0.92	0.98	13.4	67	11.7
A. Agriculture	30	6	.20	1,149	1,148	1.00	1.00	15.0	75	.4
B. Home Ec.	161	32.2	.20	1,070	1,132	0.93	0.99	16.1	81	2.0
C. Trade & Ind.	283	56.6	.20	1,819	1,282	1.58	1.12	9.3	46	6.1
D. Bus. & Dist.	310	62.0	.20	899	1,098	0.78	0.96	19.4	97	3.2

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

** Based on unit value of 1.00 for high school basic ($1148).

Table 34

Cost Analysis of Programs

Rockford

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	28,489	11,582								
II. Basic (General)	16,193	10,516	$ 802	$ 972	1.00	1.21		24.3	21.9	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	3,147		809		1.01			23.9		
V. Special Education	9,149	566								
1. Pre-school	49		2,230		2.78			12.3		
2. Mult. Hand.	37	5	3,678	4,989	4.59	8.22	5.00	7.4	5.0	7.3
3. Phy. Hand.	20		2,729		3.40			10.0		
4. Hear. Imp.	88	12	4,954	4,158	6.18	5.18	6.06	5.5	6.0	5.6
5. Partial Seeing	26	5	3,150	4,989	3.93	8.22	4.62	8.7	5.0	7.8
6. Home-Hospital	20	16	6,805	6,236	8.49	7.77	8.17	4.0	4.0	4.0
7. Lang. Develop.	16		3,034		3.78			6.4		
8. Emot. Dist.	60		2,257		2.81			8.6		
9. EMH	586	215	1,718	1,508	2.14	1.88	2.07	15.8	16.5	16.0
10. TMH	94	46	3,771	1,085	4.70	1.35	3.60	7.2	23.0	9.3
11. Learning Disab.	2,316	267	1,120	1,663	1.40	2.07	1.41	17.3	15.7	17.2
12. Speech Corr.	1,612		1,072		1.34			18.0		
13. Comp. (Title I)	3,742		1,121		1.40			17.8		
14. Bilingual	483		970		1.21			20.8		

*All differentials are based on the unit value of 1.00 for Basic (General) Programs for grades 1-8.

Table 34 cont'

Cost Analysis of Programs

Rockford

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,000	500	.50	$1,335	$1,154	1.37	1.19	18.2	36.4	27.5
A. Agriculture	0	0								
B. Home Ec.	50	25	.50	1,457	1,215	1.50	1.25	16.7	33.3	1.5
C. Trade & Ind.	450	225	.50	1,187	1,080	1.22	1.11	20.5	41.0	11
D. Bus. & Dist.	200	100	.50	1,213	1,093	1.25	1.12	20.0	40.0	5
E. Health Occ.	300	150	.50	1,619	1,296	1.67	1.33	15.0	30.0	10

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.

** Based on unit value of 1.00 for high school basic ($972).

Table 35

Cost Analysis of Programs

Rock Island

1973-1974

Program	No. of Pupils (ADM) El.	H.S.	Exp. per Pupil El.	H.S.	Cost Differential* El.	H.S.	K-12	No. Pupils per Teacher El.	H.S.	K-12
I. Total No. Pupils (ADM)	8,519	2,222								
II. Basic (General)	6,809	1,797	$ 982	$1,306	1.00	1.33		23.0	16.6	
III. Pre-Kindergarten (FTE)	0									
IV. Kindergarten (FTE)	446		962		.98			23.5		
V. Special Education	1,264	156								
1. Pre-School	180		845		.86			na		
2. Phy. Hand.	10		2,599		2.65			10.0		
3. Partial Seeing	11		4,389		4.47			5.5		
4. EMH	71	16	1,779	1,372	1.81	1.40	1.74	14.2	16.0	14.5
5. TMH	73	33	2,132	2,007	2.17	2.04	2.13	12.2	11.0	11.8
6. Learning Disab.	153		2,329		2.37			9.6		
7. Speech Corr.	200		1,806		1.84			12.5		
8. Comp. (Title I)	566	107	985	1,518	1.00	1.55	1.09	23.6	14.5	22.2

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs for grades 1-9.

Table 35 cont'

Cost Analysis of Programs

Rock Island

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	1,192	269	.226	$2,307	$1,532	1.77	1.17	11.0	49	24.4
A. Home Ec.	112	30	.27	2,422	1,607	1.85	1.23	10.0	37	3
B. Trade & Ind.	453	91	.20	2,448	1,535	1.87	1.18	9.9	49	9.2
C. Bus. & Dist.	553	111	.20	2,007	1,446	1.54	1.11	12.1	60	9.2
D. Voc.-Drop-outs (Half Day)	74	37	.50	2,765	--	2.12		12.3	25	3

*ADM. - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs.
** Based on unit value of 1.00 for high school basic ($1306).

Table 36

Cost Analysis of Programs

Vandalia

1973-1974

Program	No. of Pupils (ADM) El.	No. of Pupils (ADM) H.S.	Exp. per Pupil El.	Exp. per Pupil H.S.	Cost Differential* El.	Cost Differential* H.S.	Cost Differential* K-12	No. Pupils per Teacher El.	No. Pupils per Teacher H.S.	No. Pupils per Teacher K-12
I. Total No. Pupils (ADM)	1,520	589								
II. Basic (General)	1,232	439	$ 620	$1,120	1.00	1.81		23.3	15.0	
III. Pre-Kindergarten (FTE)	0	0								
IV. Kindergarten (FTE)	48		751		1.21			19.0		
V. Special Education	240	18								
1. Pre-School	3		4,707		7.59			3.0		
2. EMH	39	18	1,109	946	1.79	1.53	1.71	13.0	18.0	14.3
3. TMH	19		1,493		2.41			9.5		
4. Learning Disab.	17		1,498		2.42			9.4		
5. Speech Corr.	70		855		1.38			16.7		
6. Comp. (Title I)	92		1,112		1.79			12.8		

*All cost differentials are based on the unit value of 1.00 for Basic (General) Programs in grades 1-9.

Table 36 cont'

Cost Analysis of Programs

Vandalia

1973-1974

Program	No. Pupils Enrolled	No. Pupils FTE	FTE Course Equiv.	Exp. per FTE	Exp. per ADM*	Cost Differential** per FTE	Cost Differential** per ADM*	Pupil-Teacher Ratio FTE	Pupil-Teacher Ratio No. Persons	No. of Teachers
VI. Vocational Ed. (High School)	264	132	.5	$1,152	$1,136	1.03	1.01	14.7	29	9
A. Agriculture	15	7.5	.5	1,134	1,127	1.01	1.01	15.0	30	.5
B. Home Ec.	14	7	.5	1,201	1,161	1.07	1.04	14.0	28	.5
C. Trade & Ind.	170	85	.5	1,190	1,155	1.06	1.03	14.2	28	6
D. Bus. & Dist.	43	21.5	.5	811	966	0.72	0.86	21.5	43	1
E. Health Occ.	22	11	.5	1,508	1,314	1.35	1.17	11.0	22	1

*ADM - Average Daily Membership of pupils enrolled part-time in Voc. Ed. and the remainder in Basic or General Programs